

THE READER'S GUIDE
TO BARSOOM AND AMTOR

BY DAVID G. VAN ARNAM
AND OTHERS

The Reader's Guide to Barsoom and Amtor,
copyright 1963 by the publisher, Richard
Lupoff, 210 East 73rd Street, New York
21, New York. Price, \$2 per copy. The
first printing is limited to 200 copies,
numbered and signed.

This is copy number 142

John G. Vinkler

TABLE OF CONTENTS

Publisher's Preface.	3
Introduction Donald A. Wollheim	5
But Was It Science Fiction?. Richard A. Lupoff	7
The Martian Odyssey of Edgar Rice Burroughs. . . David G. Van Arnam	13
The Face of Barsoom. Larry Ivie	39
Venus Observed David G. Van Arnam	47
Afterword. Richard A. Lupoff	83

ART CREDITS:

Barsoomian scene	Roy G. Krenkel
Special title page	Robert Stewart
Map of Barsoom	Larry Ivie
Antorian scene	Al Williamson

Publisher's Preface

You hold in your hands the result of a project well over a year in progress. Early in 1962 Dave Van Arnan began researching an article on the planet Barsoom for publication in a now-defunct periodical. It was to have been an article of moderate length, accompanied by an illustrative map by Larry Ivie. When the article was finally submitted, it was a bit longer than anticipated, but of a quality to justify the extra length without dispute.

When the map was completed and turned in, it, too, was an excellent job. There was only one problem. The map did not illustrate the article...it differed from it on a number of irreconcilable points. The only solution now was for Larry to write an article supporting his views on the disputed locations.

By this time the Burroughs material had reached such bulk that it was manifestly unsuitable for inclusion in another magazine, so instead THE READER'S GUIDE TO BARSOOM AND AMTOR was conceived. We hope that its pages of lighthearted scholarship will provide many hours of pleasure for Burroughs fans. We also hope that at some future time there will be a READER'S GUIDE TO PELLUCIDAR AND POLODA...but that is a project for the far future.

A word about the opinions and evaluations contained herein. As most readers are already aware, I was recently appointed Editor of Canaveral Press, the new, authorized publisher of the works of ERB. Any opinions expressed in THE READER'S GUIDE TO BARSOOM AND AMTOR by other contributors are their opinions, not mine.

Any opinions expressed by myself (in the article "But Was It Science Fiction?") were formulated and recorded by me as a private individual and Burroughs fan, prior to my appointment by Canaveral Press. Such opinions are to be interpreted in that light, please, and are not to be regarded as representing Canaveral Press policy or my own "official" opinion, in any way.

DICK LUPOFF

New York
Jasoom
June, 1963

Barsoom Should Need No Introduction

I don't think anyone can call himself a Burroughs fan unless he's read the first six Mars novels at least five times. I know, because I must have read them a dozen times myself in the years following my discovery of them. That was way back, way back when Gernsback was editing Amazing Stories, and I was still in the stage of searching the public library for those Wells and Verne novels I hadn't found before. There was something about Barsoom which drew me. It was, dammit, real. You went along with it, all the way. If it wasn't the Mars that Percival Lowell depicted, then you had to suppose that Mars and Barsoom were simply two different worlds, occupying the same place at the same time in complete disregard of stuffy old science.

Equal but separate, that's Mars and Barsoom. And that is the essence of my emotional feeling towards these primal works of Edgar Rice Burroughs. I've read them all, enjoying Tarzan and The Moon Maid and The Mad King and the vagabond adventures of Carson Napier on Venus, but it's Barsoom that gets the rereading. John Carter, "the incomparable" Dejah Thoris, the green men, the Therns, the bowmen of Lothar, and all the rest -- I hope they are lying in wait for the astronauts when they arrive!

Wouldn't it be nice if the USA set out for Mars but got to Barsoom instead?

The trouble is that Burroughs himself sort of lost Barsoom towards the end. Somewheres he stopped getting the real transcriptions of John Carter's stories, and had to improvise. For the influence of the s-f magazines began to penetrate the Mars books and corrupt the vision. Barsoom, as we know and love it, is a static world, a stable world, whose traditions and ways were fixed millenia ago and are forever unchanging. Such things as inventive scientists producing new rays, brain-surgeries, cloaks of invisibility, giants, etc., just can't belong sociologically to Barsoom. They belong in a world like modern Earth, changing constantly, hellbent for Hell. The last few Mars books always struck me as fiction. The earlier ones, as fact. Still, the Burroughs charm was there most of the time, anyway.

No, anyone who was ever caught up in the lore of Barsoom is forever enchanted. There's a bit of Barsoomian naturalization in such as we. So it was one of the joys of my life to be able to take part in reviving the legend of Barsoom today, to be able to pump the Burroughs books back to their readers.

I'd like to say something here about how Ace editions of Burroughs came into being. For over fifteen years, first as editor of Avon books and then as editor of Ace Books, I had tried to obtain permission to do the Burroughs novels in paperbacks. The answer coming from the director of the author's corporate interests was always a rather curt negative. Sometimes there was not even that much of a reply. It was clear that whoever was in charge back in Tarzana was totally disinterested. Even the hard-cover editions officially published there became scarce, and anyone who has ever tried to collect the later Burroughs books knows how they became virtually non-existent.

Then came the discovery that this indifference on the part of the administrator of the Burroughs properties had cost them dear. The copyrights on a great many of the ERB novels had been allowed to lapse. Belonging to the public now, the property of any American who wanted them, this was a fan's chance, and I was the fan in the right place at the right time. Our Ace editions were conceived with love, were illustrated by artists who are ardent collectors and fans themselves, and our efforts have been rewarded by the enthusiasm of the reading public. Our files are flooded with letters from young and old, from all corners of the country, simply moved to write us their thanks, filled with joy to see the "classics" back again, giving us suggestions for the books they dearly wanted to see again.

Subsequently other publishers woke up to the situation, and the Burroughs heirs themselves realized what had happened, and took steps to remedy the situation. An entire revival of ERB is under way, and we are pleased to say that we are arriving at amicable understandings with the sons of Burroughs, which will enable us to present the entire history of Amtor and Pellucidar to the world.

One of our esteemed competitors likes to mark his editions as "authorized." We think that all those who are taking part in the revival of the great fantasy works sketched out by the vivid imagination of Edgar Rice Burroughs can consider themselves authorized -- authorized by the fantasy heritage of the world, authorized by the readers themselves.

But Was It Science Fiction?

Sometimes I wish Edgar Rice Burroughs had never been hit with the idea of a human infant raised in the wilds of Africa by anthropoid apes. It wasn't really a terribly original or imaginative idea...Kipling had had his Mowgli not so many years before, but the basic concept can be traced back at least as far as Romulus and Remus. Well, suppose Burroughs had never thought of Tarzan. What differences would there have been in the development of popular literature in the last fifty years?

One thing is certain. If Burroughs had never written Tarzan of the Apes, the almost incredible proliferation of Tarzan's imitators would never have come to be. Just offhand one can think of:

- + Bantan by Maurice Gardner: seven books, still swinging
- + Bomba the Jungle Boy by Roy Rockwood, in over twenty books, and movies with Johnny Sheffield, "Boy" of the Weismuller era Tarzan films
- + Jongor of Lost Land by Robert Moore Williams, widely scattered through Fantastic Adventures in 1940, 44, 51
- + Ki-Gor by "John Peter Drummond", in Jungle Stories
- + Kioga the Snow Hawk, by W. L. Chester, serialized in Blue Book, and in the movies starring Herman Brix
- + Ktendi, from Jungle Stories by James Blish and V. K. Emden, recently expanded into novel length by Blish
- + Tam, Son of Tiger, by Otis Adelbert Kline, who outdid Burroughs' other imitators by pastiching Mars and Venus
- + Tharn by Howard Brown, in Amazing Stories

The locales of these pseudo-Tarzan adventures have ranged from the Arctic Circle to Australia, and the quality from almost unbelievably bad to some remarkably good pastiche, varying generally with the imitative author's willingness and ability to capture the style and spirit of the original.

But one of Burroughs' most prolific and most successful imitators, the one we are concerned with in this Guide, was of course Burroughs himself. The original Tarzan had some two dozen sequels (the exact number depending upon your attitude regarding a few of the "controversial authorship" novels), but there were also Jungle Girl, and The Cave Girl, The Lad and the Lion, and the short novel The Man-

eater, and, to a limited extent, The Monster Men. In the last, of course, the Tarzan theme was strangely intertwined with the Golem/Frankenstein motif, to produce one of Burroughs' most curious if not one of his most successful books. There was even a little of Tarzan in The Mucker, but then there was a little of almost everything in The Mucker, so we can hardly make a major point of that.

What I've been driving at is that when Tarzan came along and virtually usurped Burroughs' career, the author's reputation in another field, which I believed would otherwise have been a very great one, was sorrily overshadowed. So much so, in fact, that hardly anyone without a special interest in the matter is even aware that Burroughs was one of the great writers of science fiction.

There were undisputed masters of certain subtypes within the science fiction field in the pre-modern and early modern era. Most of them are dead now, a few are not only still alive but still active in the field, due more often to a remarkably youthful debut than to any unusual longevity.

Verne was the unquestioned master of the pre-Gornsbachian "hard science" story; Wells, of an early form of what Isaac Asimov has named "social science fiction"; Edmond Hamilton, of the tale of planetary or interplanetary destruction; "Doc" Smith, of the interstellar epic; and Burroughs, beyond question or compare, of other-world adventure...the former half of what George Scithers likes to call "sword-and-sorcery."

But there's Tarzan, Tarzan movies, Tarzan comics, Tarzan and his admirers, and Tarzan and his ubiquitous imitators. By Issus, wouldn't Jock Mahoney make a splendid John Carter!

To be sure, Edgar Rice Burroughs' science fiction has not been completely forgotten even though it has been overshadowed, and the revival of the past two years has done much to make his stf available to the reading public. Even those of Burroughs' devotees who think highly of his science fiction tend to play up the imaginative and adventurous aspects of the stories, and to shy away from the science itself because that seems to them pretty well indefensible. As P. Schuyler Miller, a Burroughs fan himself, has pointed out, Pellucidar was a known impossibility even when Burroughs first wrote of it, and one might add that an inhabited hollow moon is equally unacceptable for exactly the same gravitational reasons that Miller cites contra Pellucidar.

But the portrayal of Venus as a steaming world of jungle and ocean underneath those clouds was regarded as perfectly possible when the Carson series was begun. And it is still possible; space probes or no, you can get a welter of conflicting arguments and theories about Venus from the most reputable of astronomers. Mars? He didn't do so badly on Mars either, but I'll leave the details for Dave Van Arnam and Larry Ivie to handle in succeeding pages.

But before we get on to the feature attractions of this Guide, I'd like to devote a couple of pages to another aspect of Burroughs' science, that of space flight itself, and the manner in which Burroughs' space ships were powered and guided.

John Carter, of course, got to Mars without benefit of any mechanism at all. His trip was not explained when it took place, and it was never explained in the following books. The original transmigration was masterfully handled by Burroughs, rereading it still generates a shiver and chill in me, but the actual means of making the trip seemed a combination of the mystical and the mysterious that will never be explained and that, unexplained, can only by the longest

stretch of the term be considered science fiction. Was it astral projection? Teleportation? Take your pick. Unexplained, it seems like pure fantasy.

As for Carson Napier, that interplanetary Wrong-way Corrigan, he went to Venus by plain old rocket-powered rocket, and no nonsense about it. (Except if you regard the whole Venus series as nonsense, in which case you can probably make a pretty strong case.)

But for the bulk of the travelling done above the surface of Mars, between the Earth and the Moon, from Mars to Earth (that one, ill-fated attempt), and between Mars and Thuria, the motive force was a rather indistinctly defined "ray". The "Eighth Ray" specifically, of any celestial object, was supposed to repel a craft carrying it from the body in question. Hence, the Eighth Terran Ray, Eighth Lunar Ray, Eighth Barsoomian Ray, etc.

As nearly as I can determine, Burroughs' Eighth Rays were some sort of anti-gravity or gravity-warping device. For many years the whole field of anti-gravity was regarded as nothing even worth investigation. Any suggestion that gravity might be neutralized or controlled for purposes of motive or other power was promptly relegated to the same nut file as perpetual motion. Space ships would be powered by sheer brute-force rockets, and don't you kid yourself by imagining otherwise. Er, that was when it became stylish to believe in space ships at all, you understand.

And so much for ERB's alleged science.

But, oddly, within the past five years the United States government has been engaged in a research project, directed toward application in its space program, and at the cost of several million dollars, in the field of anti-gravity! O, what Sputnik hath wrought.

As for control of Burroughs' space ships, most of them were controlled pretty much in the fashion of anybody's fictional space ships of that time. Ordinary steering, attitude, and power devices, pretty well comparable to those used in terrestrial three-dimensional navigation; i.e., aircraft and submarines. ERB did make use of the pre-determined orbit on at least one occasion: Carson Napier's idiotic plunge into space was all worked out in advance, and all he did was push the "go" button, an arrangement presumably arrived at because he lacked the mental wherewithal to do anything more demanding in piloting his ship; the fact that things went wrong anyway was due to sheer stupidity, and the fact that they turned out all right in the end was due to plain dumb luck, the only sort Carson would be likely to have, and nothing more.

The second exception was that used in the craft of Fal Sivas of Zodanga, used by John Carter (in the guise of the panthan Vandor) to travel to Thuria. The description of the ship's control mechanism which follows appears on pages 84 through 89 of the Grosset & Dunlap edition of Swords of Mars, but you may note that this story originally appeared serially (Blue Book magazine) beginning in November, 1934, and was presumably written earlier that year, some twenty-nine years ago.

(I have indicated particularly significant passages with marginal numbers, and will reserve my comments for the end of the quotation. The narrator is, as expected, John Carter....)

1

"I have given that seemingly insensate mechanism a brain with which to think. I have perfected my mechanical brain, Vador, and with just a little more time, just a few refinements, I can send this ship out alone; and it will go where I wish it to go and come back again.

"Doubtless, you think that impossible. You think Fal Sivas is mad; but look! watch closely."

He centered his gaze upon the nose of the strange-looking craft, and presently I saw it rise slowly from its scaffolding for about ten feet and hang there poised in mid-air. Then it elevated its nose a few feet, and then its tail, and finally it settled again and rested evenly upon its scaffolding.

I was certainly astonished. Never in all my life had I seen anything so marvellous, nor did I seek to hide my admiration from Fal Sivas.

2

"You see," he said, "I did not even have to speak to it. The mechanical mind that I have installed in the ship responds to thought waves. I merely have to impart to it the impulse of the thought that I wish it to act upon. The mechanical brain then functions precisely as my brain would, and directs the mechanism that operates the craft precisely as the brain of the pilot would direct his hand to move levers, press buttons, open or close throttles."

.....

The interior of the control room, which occupied the entire nose of the ship, was a mass of intricate mechanical and electrical devices.

3

On either side of the nose were two large, round ports in which were securely set thick slabs of crystal.

From the exterior of the ship these two ports appeared like the huge eyes of some gigantic monster; and, in truth, this was the purpose they served.

4

Fal Sivas called my attention to a small, round metal object about the size of a large grapefruit that was fastened securely just above and between the two eyes. From it ran a large cable composed of a vast number of very small insulated wires. I could see that some of these wires connected with the many devices in the control room, and that others were carried through conduits to the after part of the craft.

Fal Sivas reached up and laid a hand almost affectionately upon the spherical object to which he had called my attention. "This," he said, "is the brain."

.....

5

"In one respect, however, the brain lacks human power. It cannot originate thoughts. Perhaps that is just as well, for could it, I might have loosed upon myself and Barsoom an insensate monster that could reek incalculable havoc before it could be destroyed, for this ship is equipped with high-power radium rifles which the brain has the power to discharge with far more deadly accuracy than may be achieved by man."

"I saw no rifles," I said.

"No," he replied. "They are encased in the bulkheads, and nothing of them is visible except small round holes in the hull of the ship. But, as I was saying, the one weakness of the mechanical brain is the very thing that makes it so effective for the use of man. Before it can function, it must be charged by human thought-waves. In other words, I must project into the mechanism the originating thoughts that are the food for its functioning.

"For example, I charge it with the thought that it is to rise straight up ten feet, pause there for a couple of seconds, and then come to rest again upon its scaffolding.

6

"To carry the idea into a more complex domain, I might impart to it the actuating thought that it is to travel to Thuria, seek a suitable landing place, and come to the ground. I could carry this idea even further, warning it that if it were attacked it should repel its enemies with rifle fire and maneuver so as to avoid disaster, returning immediately to Barsoom, rather than suffer destruction.

7

"It is also equipped with cameras, with which I could instruct it to take pictures while it was on the surface of Thuria."

- COMMENTS:
1. We call them computers instead of mechanical brains.
 2. Computers use all sorts of input devices; some of them you do have to talk to. Telepathy? There is research in progress.
 3. Yes, Mariner and the others use visual orientation devices. Eyes.
 4. The (brand) Microelectronic Aerospace Computer (Model 1816) was announced in January, 1963. It is six inches square, seven inches high, weighs sixteen-and-a-fraction pounds. It contains 18,000 transistors, diodes, capacitors, and resistors. It is capable of guidance and control aboard spacecraft, satellite, ballistic missile or supersonic aircraft. With additional memory banks it could serve as a weapons control computer. (Memory banks: 4"x4"x4".)
 5. I never said he could spell.
 6. Any programmers in the house? For the uninitiated, this is exactly the way a computer is programmed. Computers were invented in 1946.
 7. As Lunik.

Okay, to consider at last the title question, Was it Science Fiction? You bet your bottom pi it was! It was fine science fiction.

//

BEING
A
CULTURAL
GEOGRAPHY
OF
BARSOOM;

A
GLOSSARY
OF
PLACE
NAMES;

WITH
AN
ADDENDUM
ON
CERTAIN
APPARENT
ANOMOLIES;

AND
AN
ESSAY
WITH
SOME
NOTES
&
QUERIES

I THE HOLY HEKKADOR HIMSELF

It is commonplace to say that, when Edgar Rice Burroughs wrote his first successful novel, DEJAH THORIS, A PRINCESS OF MARS (its original title), his thirty-six years of life had been a record of nothing but failure in everything that he had tried -- and he had tried many things.

His father was rather well-off for his day, the owner of an electric storage battery plant, and Burroughs received an excellent education...not, however, good enough to keep him from flunking entrance exams to West Point.

Edgar Rice Burroughs was born in Chicago on September 1, 1875. After attending the Harvard School in Chicago, Phillips Academy in Andover, Massachusetts (Andover must have been a great experience for him; you'll notice it on pp. 13 and 31 of AT THE EARTH'S CORE), and the Michigan Military Academy, Orchard Lake, Michigan, and failing to make West Point, his desire for a military career led him to attempt to get a direct commission in the U.S. Army and, refused there, he even tried to join the Chinese Army. Finally he managed to get into the 7th U.S. Cavalry during the Geronimo Campaign (hence THE WAR CHIEF) -- and was bounced out in weeks for being under age.

Apparently he obtained his first real job only after his marriage to Emma Centennia Hulbert in 1900, when he was twenty-five...in his father's battery plant at \$15 a week. For the next ten years he tried a wide variety of different occupations, in the finest tradition of American novelists. Attempting to make enough money to keep his wife and eventual three children alive, he worked variously and erratically as: an office clerk, storekeeper, gold-miner, salesman, yard dick on a Salt Lake City railroad line, even as an Idaho cowboy. None of these efforts got him anywhere at all. By the time he was thirty-six it would be excusable if he perhaps felt he had just about run out of fields.

Then, much in the way James Fenimore Cooper had a century before, he discovered what was going on around him in the writing game. At the time, Burroughs was checking ads in the pulp-magazines for a patent medicine firm, and in reading the stories was struck by the overall poor quality of them. James Fenimore Cooper was reported to have said, on reading the stories being published in England on the Indians in the late colonies, something to the effect that, "Hell, I can do better than that and I never wrote a word in my life."

I think we can safely agree that Burroughs said much the same thing; at any rate, the effect was the same. Magazines were publishing the stuff, he'd write the stuff.

He tossed off a historical novel about England, THE OUTLAW OF TORN (in which an early Lord Greystoke is briefly seen), and sent it off.

Unfortunately, it failed to get published. (At that time, anyway.)

But Burroughs had not given up trying to get in the Army (he finally did become an officer in the Illinois Militia), and didn't give up writing either. A vanity press in New York claims they published his "first book," but what book this is, I do not know. And he is said to have ghosted a book along the How To Succeed In Business line, god help us.

Then Thomas Newell Metcalf, the editor of All-Story, received and instantly accepted a manuscript called DEJAH THORIS, A PRINCESS OF MARS for a princely \$400. Run as a six-part serial beginning in February 1912 with the title UNDER THE MOONS OF MARS, it changed Burroughs' life, and probably the course of science fiction.

Three issues after MOONS, TARZAN OF THE APES appeared for the first time, in the pages of the October 1912 All-Story.

Burroughs had found a career. The next year saw five complete books in All-Story and New-Story: two more Mars novels, another Tarzan, and THE CAVE GIRL and A MAN WITHOUT A SOUL (THE MONSTER MEN, in book form). By the end of that year, 1913, he was making \$20,000 a year in magazine sales alone. (And starting in the January 1914 New-Story, OUTLAW made its appearance at last.)

By the time McClurg brought out A PRINCESS OF MARS in book form in 1917, some 18 Burroughs novels had been serialized in All-Story alone.

A more complete bibliography will be found at the end of this article; for the time being, the Mars Books in order of book publication are:

1. A PRINCESS OF MARS, McClurg, 1917 (PM)
2. THE GODS OF MARS, McClurg, 1918 (GM)
3. THE WARLORD OF MARS, McClurg, 1919 (WM)
4. THUVIA, MAID OF MARS, McClurg, 1920 (TMM)
5. THE CHESSMEN OF MARS, McClurg, 1922 (CM)
6. THE MASTER MIND OF MARS, McClurg, 1928 (MMM)
7. A FIGHTING MAN OF MARS, Metropolitan Books, 1931 (FMM)
8. SWORDS OF MARS, Burroughs, 1936 (SwM)
9. SYNTHETIC MEN OF MARS, Burroughs, 1940 (SMM)
10. LLANA OF GATHOL, Burroughs, 1948 (LG)
and two shorter stories:
11. JOHN CARTER AND THE GIANT OF MARS, Amazing Stories, January 1941 (JCGM)
12. SKELETON MEN OF JUPITER, Amazing Stories, February 1943 (SMJ)

The numbers are as used in the Glossary; the abbreviations are from Heins' magnificent bibliography* and are used in page citations within the body of the article; and in the text I use the obvious short form of each title.

NOTE: Most of my page references (but see my bibliography) are for the Methuen (British) editions, which vary slightly from the American; for THUVIA, CHESSMEN, and MASTER MIND, however, I used the Dover one-volume edition with continuous pagination.

II A BRIEF BARSOOMIAN BAEDECKER

Barsoom

Barsoom (Burroughs' Martian name for Mars) is a dying planet of vast dead sea bottoms covered with ochre moss, of dead cities visited only by savage hordes of green Martian barbarians, of constantly warring kingdoms, tiny city-states, and empires, where the remnants of a once-mighty race linger on, fighting desperately against the perils of a vanishing atmosphere, the terrible green men, and each other.

A million years ago the planet was rich and prosperous; the blond, white-skinned Orovars held sway over virtually the entire planet and ruled the five seas with mighty fleets. All was peaceful.

Then the seas began to recede; Horz, the capital of the most magnificent of the Orovar empires, built out towards the sea as Throxus, mightiest of the five seas, gradually evaporated. The powerful civilization began to crumble under this inevitable threat and doom. The previously small and controllable groups of green men, great savage manlike tusked monsters that grew to a height of fifteen feet, began attacking their former masters, vengefully, terribly. The Orovars were almost entirely wiped out. Those that remained alive (apart from the Lotharians, who lost all their women in a desperate trek across half a world, and one group who successfully defended themselves in Horz to the present day) gradually merged with two of the minor races of that time, a reddish-yellow race and another almost black, to finally become the dominant red race of today.

In the process most of the Orovar civilization was lost, but, though the white race was virtually destroyed, the new race of red men survived hardily, recapturing many cities from the green men and slowly rebuilding the lost science.

At the time of PRINCESS, the red men hold uneasy rule over most of the civilized portion of the planet, from such centers as Ptarth, Duser, Amhor, Duhor, Toonol, Phundahl, and the great Empire of Helium. The green men are in control of much of the actual surface of the planet, but the red men have built a system of fertile and well-defended walled waterways, lacing the globe.

At the north pole survives a black-bearded yellow race, in the land of Okar. At the south pole live the Holy Thorns (white-skinned offshoots of the Orovars) in the Mountains of Otz ringing the Valley Dor and the Lost Sea of Korus. Underneath is the domain of the Black Pirates, on the underground Sea of Omean which drains Korus.

*A GOLDEN ANNIVERSARY BIBLIOGRAPHY OF EDGAR RICE BURROUGHS, Henry Hardy Heins, Albany, 1962, 122+1 (\$3, PO Box 9005, Albany 9, NY). Magnificent is the word; if you're a Burroughs fan, buy it. If you're a Burroughs collector, you're a chump if you don't buy it.

+++++ +++++ +++++

But the red men are the dominant race. Their culture is a strange mixture of swords and radium pistols, assassination, constant warfare, honorable codes and black treachery, barbaric Games in vast arenas and fliers capable of speeding through the thin air of the dying planet at 200 miles an hour. Something of a renaissance is gradually taking place, at least scientifically. If it were not for the Atmosphere Plant built and maintained by Helium and protected by all the intelligent races of Barsoom, all life would have died millenia past. It is the red men who rediscovered the principles upon which the radium pistols and rifles are built, which form such an unusual contrast with the medieval sword-and-dagger combat more often favored.

Into this complex and vividly realized world comes Captain Jack Carter of Virginia, transported over 43 million miles of space by means never explained. By the end of the third novel he has wed the princess of the reigning house of Helium, extinguished the religious dictatorship of the Holy Therns who ruled Mars behind the scenes -- and then wipes out the power of the Black Pirates, the so-called First Born of Barsoom, who in turn ruled the Holy Therns, unknown to them, through their own religion of Issus, Goddess of Death and of Life Eternal -- and even allies Helium with the Tharks, a tribe of green men, for the first time in recorded history creating a friendship between a human being and a green man, Tars Tarkas (later Jeddak of Thark). By the end of WARLORD he has unified the greater part of Mars in a mighty alliance of red, green, white, black, and yellow men, becoming John Carter, Jeddak of Jeddaks, Warlord of Mars.

+++++ +++++ +++++

In the course of ten novels Burroughs creates for the readers' delight a vast panorama of cities and empires, of rivers and valleys and vast mountain chains, of ice-cap kingdoms, of an Oz-like profusion of isolated tiny lands stuck away in the middle of nowhere, out of touch and unknown to the rest of Barsoom -- a truly amazing background for the many stories.

But -- and here's the point -- in spite of myriad details of distance and locations he gives, of complicated relationships in space between all these lands, he presents no maps (such as you will find in PELLUCIDAR, and, spectacularly, in the Venus Series), and even admitted, shortly before his death, that he had never made such a map even for his own benefit.

So this study will concern itself, except for some remarks at the end, with the problems of "areography," attempting to work out the relationships and locations of Burroughs' place names with the end in view of constructing a detailed, complete, and accurate map.

How Many Haads To Helium (Or To A Mile, For That Matter)

By far the most important location on Mars is Helium, or more precisely, the Twin Cities of Helium, which are Greater Helium and, seventy-five miles away across a great plain, Lesser Helium. (It might as well be admitted at the outset that at no time is any indication given as to which direction the one is from the other, though I personally always have had the feeling that Lesser Helium lies north-east of Greater Helium.)

But where precisely is Helium? It is only in the final book of the series, LLANA OF GATHOL (LG,p.16), that we get a precise latitude -- 30° south. For the longitude, we must perform a simple calculation from information provided

in SWORDS OF MARS (SwM,p.15): "Over nineteen hundred miles east of The Twin Cities of Helium, at about Lat. 30° S., Lon. 172° E., lies Zodanga." Converting 1900 miles into haads and taking a back azimuth should give us the approximate longitude of Helium.

This brings us smash up against a key and central problem in these matters. What is the precise value of the haad in miles? In a famous footnote to THUVIA, MAID OF MARS (TMM), 100 haads is set equal to one karad, which in turn equals one degree of Barsoom's circumference at the equator; there are of course 360° in a circumference. From the known circumference of Mars, therefore, we can easily calculate the haad; but Burroughs makes this unnecessary by telling us explicitly that the haad is about 2339 Earth feet.

This is in THUVIA, which appeared in magazine form in 1916. However, in A FIGHTING MAN OF MARS (FMM,p.27), serialized 14 years later, he tells us that a haad is 1949.0592 feet...which, as it happens, is fairly close to the value one obtains when calculating from the circumference of Mars as given in the current edition of the Encyclopedia Britannica.

The contradiction is, however, not necessarily Burroughs' fault. The Britannica points out the difficulty of ascertaining the precise dimensions of the planet (a matter of atmospheric interference), and most probably Burroughs, writing 46 years ago, calculated the haad from an authentic measurement of his day. Then, by 1930 discovering that a more accurate figure had been published, he recalculated the haad and (without explaining the discrepancy with THUVIA) published that.

However, in so doing he left the reader wondering just how far away from each other places are in the six books preceeding FIGHTING MAN. Using the THUVIA value, 1900 miles would be about 45° ; the later figure gives us just over 51° -- close enough to the earlier as an approximation, but an obvious breeding place for cumulative errors.

Considering that the books are written from Carter's point of view (or Hadron's, or Paxton's), i.e., from the point of view of men who would naturally think in terms of haads, we must invariably accept a figure given in haads being correct, and use the later value for it in earth terms, even when we read "X is y haads (z miles) from a" when the miles derived there from the haads are based on the incorrect value for the haad.

Burroughs as the actual author, of course, must have been thinking of the distances in miles and then have changed them into haads with the mistaken value, making the figures in haads suspect for the first six books. (Though it should be noted here that the Twin Cities are specifically "75 miles apart" in all books.)

We shall accept the books on their own terms, of course, and consider that the values in haads for the first six books take precedence over the given equivalents in miles (bearing the true facts in mind when up against particularly knotty problems, however).

At any rate, since the Helium-Zodanga relationship is given in FIGHTING MAN as 1900 miles, there is no difficulty in accepting this as slightly over 51° , putting Helium at 30° south latitude and 121° east longitude.

(I am not taking into consideration the angular distortion involved in applying the equatorial value for a degree to a distance some ways away from the equator, as, short of a hefty application of solid geometry and trigonometry to the

problem, the only precise method is to work it out on a globe. Larry Ivie did this, to arrive at the map you will shortly see, and his values are consequently slightly different from mine -- and more accurate.)

The most complex areography is to be found at the South Pole, where, at the center of the icecap covering the Pole, a series of concentric valleys and mountains surround the Lost Sea of Korus.

A rough description: an immense icefield, the polar icecap, forms a barrier between the rest of Barsoom and a warm, sunken region at the pole itself. At the inner edge of the icecap the barrier mountains of ice become thousands of feet high; and along this inner edge at some point is the conical flat-topped mountain-entrance to the underground Land of the Black Pirates on the sunken Sea of Omean.

In the roughly circular open space at the pole beyond the ice, there is, first, a ring-valley, the Otz Valley, extending around the entire area; inside that is a ring-chain of mountains, the Otz Mountains, the outer slopes of which are fortified all the way round by the Holy Therns as defense against the ferocious raids of the Black Pirates. Inside the Otz Mountains is another ring-valley, the Valley Dor, entirely surrounding the Lost Sea of Korus, on the shores of which lies the Temple of Issus, connecting with the underground Land of the Black Pirates.

This Lost Sea of Korus drains down into the Sea of Omean, which is larger and lies some two miles below the surface.

The River Iss, which runs from some thousands of miles north of the pole (and which all Martians of the outside world, red and green alike, desire to journey down to the Valley Dor, the legendary Martian Heaven), drains into Korus. The Iss runs under the icefields, appears deep in a mighty chasm slicing through the Otz Valley, runs under the Otz Mountains by the Golden Cliffs, and on into the Sea of Korus.

We do not know the precise distances involved in the polar regions, save that the Otz Valley, the outer ring-valley, is 100 miles in width. We are also never told precisely where the South Pole itself is in relation to all these places; but the Tree of Life, which flourished 23,000,000 years ago, was situated at the exact center of the Valley Dor (the spot is now covered by the silent waves of Korus) and I propose that the appropriate location of the Tree is at the South Pole itself.

The North Polar region is quite dissimilar from the South. There is a gigantic outer barrier-range of ice, the only way through which is by means of the Carrion Caves (relict of a battle before the dawn of time). The yellow race rules most of the icecap; their land, Okar, is from all descriptions nothing but barren ice and snow and rocks. The cities of the Okarians are domed to keep out the cold. Kadabra, the capital, is near the pole; by the south wall of the city is an immense magnetic monolith which lies directly over the north magnetic pole, and which is used to attract irresistably enemy fliers, which are smashed against it. Okar has a number of cities, the most distant of which is Illall. Near Kadabra is the valley of Marentina, a semi-independent domain protected by a pass so narrow that a dozen men could hold it against a million.

There is also a nation of red men occupying a considerable area of the north polar region, but at some distance from Okar. These are the Panars, and their capital is Pankor.

These and the remaining cities, empires, and other areographical configurations touched on in The Matter Of Barsoom are to be found in the Glossary immediately following the Map, and discussions of some finer points will be found in an Addendum. But it here remains to point out that the precision of knowledge available on certain points is striking.

Gathol, for example. We know beyond question that the land is some 140,000 square miles in area and has no canals of its own, though the far northwest corner of the country is cut by one belonging to another land.

The city of Gathol, believed to be the oldest inhabited city of Mars, had been built on an island in Throxus, mightiest of the five oceans of old Barsoom. As the ocean receded the city was extended down the mountain to follow it until now it extends from the summit to the base of the mountain. The city is entirely surrounded by a great salt marsh, all that remains of the ocean.

Furthermore, the land can be located unerringly. It extends from 10° west longitude to 20° west longitude, and from Polodona, the Equator, to 10° north latitude, including a million square haads (excluding for the moment that old problem about just what the values of the haad and mile should be).

Apart from such matters, there is one other aspect of Martian topography, one that is generally misunderstood. Far from being only a land of ochre moss and dying cities, Barsoom supports a number of forests, rivers, and lakes, variously scattered about its surface. The valley Hohr, for instance, through which the river Syl runs, contains a forest of prehistoric vintage, exceptionally lush, with many plants and trees long since extinct elsewhere. It is thought that what enables this forest to survive is that the valley, being sunk below the surface of the rest of Barsoom, concentrates the oxygen and heat so that the environment becomes highly tropical.

This same reasoning concerning air and heat is applied to four other notable forests of Barsoom -- the huge forest that covers much of the rather swampy land of Kaol, the forest in the valley of Lothar, the forest in the Valley of the First Born, and the Forest of Lost Men. All four are sunken lands which concentrate heat in tropical quantities. Kaol and Invak (within the Forest of Lost Men) indeed both lie directly on the equator, and the Valley of the First Born is just north of Gathol, whose southern boundary is the equator.

These forests are not like that of the valley Hohr, though, for in them the modern trees such as sompus, skeel, and sorapus abound. And for that matter, the drought-resisting skeel tree is to be found sparsely timbering many of the low rolling hills of Barsoom.

The Valley of the First Born is also interesting in that it contains the only examples of lakes to be found on Mars other than at the South Pole (and other than what small and scattered open bodies of water might be found here and there in the several swamps and marshes).

In addition to these five sunken forests there is the Helium Forest north of the Twin Cities, which furnishes timber for all Barsoom; it is unique, in that it seems from all available evidence to lie on flat open ground.

Finally, there is the one great survival of the mighty seas that once covered so much of Mars: The Great Toonolian Marshes, which run from east to west some 1800 miles and attain in some places a width of 300 miles. They are a fierce jungle of swamps, narrow watercourses, trees, undergrowth, islands, savage beasts, and savage remnants of long-isolated aborigines.

III GLOSSARY

(Note: This Glossary is designed to completely replace the one Burroughs himself gave at the back of THUVIA, reprinted at the end of the Dover three-volume edition. The greater portion of areographically relevant remarks from ERB's Glossary are reprinted here, in quotes immediately after the numbers which indicate which books the Entry in question is mentioned in. The Entries include all place names to be found in the twelve Canonical Works, and, in parenthesis at the end of each item, the page number on which the Entry is first mentioned, in, of course, the editions I worked from. I have occasionally indicated additional page numbers in cases of special interest, but have not tried to be complete or consistent in this regard. Certain complex problems of location are treated at greater length in the Addendum.)

Aaanthor: 4; "A dead city of ancient Mars"; 50° S.Lat., 40° E.Lon., though there are problems about its relationship to other Entries, discussed in the Addendum; occasionally inhabited by Torquasians from the north; the magnificent monoliths that line its Avenue of Quays make it famous throughout Barsoom; (26,30)

Aisle of Hope, the: 2; "An aisle leading to the courtroom in ((Greater)) Helium"; broad central aisle of the Temple of Reward; (174)

Amhor: 6,9,10; city and principality; Jad Hal, Prince; hereditary enemy of Duhor; the principality raises herds of thoats and zitidars for export; Amhor city is small but possessed of a fine zoological garden and a notoriously lively night life; the city is well-defined as to location -- we know it is 5000 haads east of Duhor and some 700-750 miles north of Morbus; (395)

Artolian Hills, the: 6,9; snow-clad, they surround the city of Duhor, and are probably highest to the south and east of the city; (6/397,9/16)

Avenue of Ancestors, the: 2; "A street in ((Greater)) Helium"; the great ceremonial avenue of the Empire which runs from the Gate of Jeddaks five full miles to the north, to the Temple of Reward; (172)

Avenue of Gates, the: 5; circles the city of Manator just within the outer wall; (289)

Avenue of the Green Thoat, the: 8; street in new city of Zodanga; (78)

Avenue of Jeddaks, the: 10; street in Horz; (80)

Avenue of Quays, the:

- a: 4; in Aaanthor, leading from the quays to the great central plaza; lined by great ersite monoliths; (30,31)
- b: 10; street in Horz; (80)

Avenue of Warriors, the: 8; street in new city of Zodanga; (113)

Bantoom: 5,9,10; a beautiful valley surrounded by low hills; ruled by various swarms of kaldanes, among them Luud and Moak; (159,181)

Barsoom:

- a: Mars; John Carter, Warlord.
- b: Name of Earth's spaceship in THE MOON MAID.

Carrion Caves, the: 3,5; only entrance under the barrier mountains of ice to the land of Okar at the North Pole; so-named because the site and burial-ground of a great defensive battle ages before when the yellow men retreated to Okar at the drying of the seas, and still used as burial ground by the Okarians as a warning not to pass through to Okar; (112)

Chamber of Mystery, the: 2; under the Otz Mountains; (37)

Chamber of Reptiles, the: 3; lies beneath the Temple of the Sun, filled with snakes and reptiles guarding the secret entrance to the great turning chamber; (40,41)

Chicken Men, the Land of the: This and other non-Canonical locales from John Coleman Burroughs' comic strip of the early 1940's are not at present indexed.

Cliffs, the Golden: see Golden Cliffs, the

Cluros: Barsoomian name of Deimos, the farther, smaller, slower moon of Mars.

Cosoom: Barsoomian name for the planet Venus.

Domnia: 8; important kingdom of Ladan (Thuria); ruled by a jeddak; some distance from the castle of the Tarids; (237,297)

Dor: see Valley Dor, the

Duhor: 5,7,9; city and land; Kor San, Jeddak; hereditary enemy of Amhor; surrounded by the snow-clad Artolian Hills, its location is well-defined in relation to other places, nonetheless presenting a very knotty problem discussed in the Addendum; (395)

Dusar, the City of: 4,5,7,10; Nutus, Jeddak; the city is precisely located at 15° N.Lon., 20° E.Lat., see Addendum for relationship to other cities;(5)

Dusar, the land of: 4,5,7,10; "A Martian kingdom"; Nutus, Jeddak; one of the great nations of Barsoom; of particular and curious interest is the fact that it is famous for its honey, for this tells us that there are bees on Mars;(5)

Exum: 9,10; referred to as Barsoomian Greenwich in both books, though original THUVIA Glossary specifically attached that same title to Horz; discussed in Addendum; (9/16,10/16)

Forest of Lost Men, the: 10; also called the forest of Invak, but is also inhabited by men of Onvak; skeel, sorapus, and sompus trees primarily; lies in a long, deep valley at the equator (longitude debatable, but between Dusar and Helium; (246,251)

Fields of Jetan, the: 5; site of the Games of Manator, in the city of Manator; (294)

Garden of the Jeddaks, the: 3,4; lies in the inner courtyard of the palace of Salensus Oll at Kadabra; (4/101)

Gate of Enemies, the: 5; in the walls of the city of Manator; (236)

Gate of Jeddaks, the: 2; "A gate in ((Greater)) Helium"; the main gate of the city, opening on the Avenue of Ancestors; (172)

Gathol, free city of: 5,6,7,10; Gahan, Jed; believed oldest inhabited city on Barsoom; built on island in Throxus, now mountain, and extends from the top of the mountain to the base; famous for the richness of its diamond mines within the mountain; the city is surrounded by a great salt marsh, last remnant of Throxus; it is difficult to locate the city precisely in the land; (141)

Gathol, land of: 5,6,7,10; Gahan, Jed; 140,000 sq.mi., mostly plains with no waterways of its own; we know its location with great precision -- 10° W.Lon., to 20° W.Lon., and Equator to 10° N.Lat.; frequently used as reference point, see Addendum; (141)

Ghasta: 7; almost-extinct city of perhaps 600 people, 100 of whom form the court of the insane jed, Ghron; sobriquet, "happy Ghasta"; lies in the valley Hohr; the only direct bearing we have on its location is that it is southwest of Jhama; the valley is reached by an underground river from Tjanath, but neither distance nor bearing of the river is given; (111)

Golden Cliffs, the: 2,3,4,5,10; of the Mountains of Otz; point at which the River Iss flows under; contain veins and patches of solid gold, with outcroppings of ruby, emerald, and diamond boulders; (30)

Golden Temple of Issus, the: 2,3; on the shores of the Lost Sea of Korus; (84)

Gooli: 9; city between Morbus and Phundahl in the Toonolian Marshes; the Goolians are marsupials, man-like, but unintellectual; Anatok, Jed of Gooli and all of the Island of Ompt; this "largest city in the world" is a collection of huts; (217)

Gorge of Tarnath, the: This and other locations from TARZAN ON MARS, by "John Bloodstone" (S.J. Byrne), presently non-Canonical, are not given in this index.

Greater Helium: see Helium, the Twin Cities of (Tardos Mors, Jeddak; scarlet tower)

Hall of Chiefs, the: 5; in the palace of the jeddak in the city of Manator; here are the marvelously embalmed bodies of the great jeddaks in Manator's history; (238)

Hastor: 2,3,5,7,9,10; "A city of Helium"; ruled by a jed; lies on the southern border of the Empire of Helium, lying some 500 haads south of the Twin Cities; one of its major shipbuilding cities; (187)

Helium, the Empire of: 1,2,3,4,5,6,7,8,9,10,11; Tardos Mors, Jeddak; probably the greatest empire of Barsoom; its boundaries are not given, though we know it extends only some 500 miles to the south of the Twin Cities; it extends at least 1900 miles to the east and 1400 miles to the northeast; (82)

Helium Forest, the: 11; furnishes timber to all civilized Mars; lies to the north of the twin cities; (43)

Helium, the Twin Cities of: 1,2,3,4,5,6,7,8,9,10,11; Tardos Mors, Jeddak of Greater Helium/Mors Kajak, Jed of Lesser Helium; the two cities are separated by a great plain 75 miles wide; a scarlet tower marks the larger city, a yellow the smaller, each tower a mile high; probably the greatest cities of Barsoom; (82)

Hohr, the valley: 7; contains the river Syl and the city of Ghasta; it is sunk below the level of the surface and presents an almost prehistoric appearance, with a forest of vegetation like none other on Barsoom, infested with giant spiders; accessible by an underground river from Tjanath, distance and bearings not given; see Addendum; (105,116)

Holy Land, the: 2,10; Black Pirates' name for their land, Xodar calling it "the real heaven of Barsoom"; there is a confusion between GODS and LLANA, in that the latter is referring to the Valley Dor, while the former clearly refers to the buried Sea of Omean; but the Temple of Issus, run by the Black Pirates, is in the Valley Dor, which may make both versions acceptable casual usage (94)

Horz: 4,5,10; "Deserted city; Barsoomian Greenwich"; thought to be a dead city, but inhabited by the last of the Orovars; Ho Ran Kim, Jeddak; in THUVIA Glossary, referred to as "Barsoomian Greenwich," a term applied to Exum in LLANA and implied to Exum in SYNTHETIC MEN; Horz was, a million years ago, the capital of a great empire, the seat of learning and culture for the whole race of Orovars; modern Barsoomians, unaware it is still inhabited, yet regard it as probably the oldest and greatest of the many dead cities of Barsoom; the Greenwich Question is discussed in the Addendum, and a hot potato it is, too; (102)

Illall: 3; "A city of Okar"; farthest in Okar from Kadabra, the capital; isolated and has little intercourse with the capital; (129, only mention)

Invak: 10; city of invisible men (through pills) on the equator, in the valley of the Forest of Lost Men; Ptantus, Jeddak; longitude debatable, but between Dugar and Helium; (248)

Invak, the forest of: see Forest of Lost Men, the

Isle of Shador, the: see Shador, the Isle of

Iss, the River: 1,2,3,4,8; "River of Death"; the River of Mystery; point of origin and its course are unknown; passes under the ice barriers at the South Pole, through the Otz Valley, under the Otz Mountains, through the Valley Dor, to the Lost Sea of Korus; when Martians became 1000 years of age or were ready to die, they formerly took the pilgrimage down the Iss never to return; (90)

Jahar: 7; city and empire ruled by Tul Axtar, Jeddak, until slain by Tan Hadron of Hastur; discussion of problems of the Jahar Complex in Addendum; (13)

Jasoom: Barsoomian name for the planet Earth.

Jhama: 7; Phor Tak of Jahar built this tower and laboratory; the name was later given by Phor Tak to his invisible (by paint) flier; see Addendum; (136)

Kadabra: 3,4,10; "Capital of Okar"; Salensus Oll, Jeddak of Jeddaks of the North (slain by John Carter in WARLORD and succeeded by Talu, Jeddak of Jeddaks of the North, in turn deposed for a time, LLANA, by the jeddak of Panar, Hin Abtol, Jeddak of Jeddaks of the North); lies near the North Pole, and, in fact, the North Magnetic Pole is just outside its south wall; it is a large city, its walls a hundred miles long in circling the city; dome-covered against the cold; made of Martian concrete; (124)

Kamtol: 10; capital city of the Valley of the First Born; pop. about 200,000, incl. approx. 5000 slaves; Dexus, Jeddak; its residences are unique in that they cannot be raised at night as in most other Martian cities of today; a name left over from the Venus Series?; (105)

Kaol, the city of: 3,4,10; Kulan Tith, Jeddak, Defender of the Holies; notable for the splendour of its ceremonials and parades and of its great carved gates; surrounded by a great forest; located on the equator, almost halfway round the planet from Helium; (79)

Kaol, the land of: 3,4,10; "A Martian kingdom in the eastern hemisphere"; Kulan Tith, Jeddak; a misanthropic land whose only ally is Ptarth, it is a sunken area on the equator almost halfway round to the east of the planet from Helium; it is almost tropical in its heat, a swampy land with no canals of its own, possessing one of the rare natural forests of Mars, where the sith and the calot tree are still to be found; eventually becomes an ally of Helium; (62)

Kobol: 7,10; no location whatsoever given in either text; it was sacked at least 14 years before the action of FIGHTING MAN; beyond that we know only that it was ruled by a jed; (17)

Korad: 1; "A dead city of ancient Mars"; lies on a tableland in a valley just south of a dead sea, ten miles south of the Tharkian incubator; (95)

Korus, the Lost Sea of: 1,2,3,4,7,8,10; "The Lost Sea of Dor"; lies in the center of the Valley Dor; drains the River Iss and is drained by the buried Sea of Omean two miles beneath it; (90)

Korvas:

- a. 11; a dead city on the banks of the dead sea of Korvas; (47)
- b. 11; a dead sea; seems to lie some 500 miles SE of Helium, but problem of its location not completely solved yet; (47)

Ladan: 8; Thurian name for Thuria; (251)

Land of Lost Souls, the: 2,3; also called the village of lost souls; lies beside the great chasm which the River Iss makes in its progress through the Otz Valley; (85)

Lesser Helium: see Helium, the Twin Cities of (Mors Kajak, Jed; yellow tower)

Lost Sea of Korus, the: see Korus, the Lost Sea of

Lothar:

- a. 4; the ancient city; we know only that it stood upon the shore of Throxus; its people retreated in the old days of the drying-up of the oceans to what is now the valley of Lothar where the new city of Lothar stands; the fleets of ancient Lothar were the mightiest on the five salt seas; (76,86)
- b. 4,5,8; "The forgotten city"; the modern, magnificent city lying in the valley of Lothar; Tario, Jeddak, quite mad, called "the last of the jeddaks of Barsoom"; less than 20,000 of the men of ancient Lothar, and none of the women, survived the cruel and terrible journey ages past when the green men scourged them across the world at the drying of the oceans; their mental powers are so great that they can call up the men of ancient Lothar as their present-day phantom bowmen; see Addendum; (40)
- c. Not, however, to be confused with Mandrake the Magician's sidekick.

Lothar, the valley of: 4,5,8; an immense valley surrounded by impenetrably high cliffs, the mountains of Torquas or the Lotharian hills; one of the rare spots in which trees can be found; the city of Lothar lies on a treeless plain deep in the valley from the single tunnel entrance to the south; precise location presents difficulties discussed in Addendum under Aanthor Complex; (38)

Lotharian hills, the: 4; Lotharian name for the mountains of Torquas which surround the valley of Lothar; (35,52)

Manataj: 5; furthest city from the city of Manator in the land of Manator; no precise location given; (288)

Manator

- a. 5; principal city in the land of Manator; O-Tar, Jeddak, succeeded after his suicide by his son A-Kor, Jeddak; the Fields of Jetan are a notable feature of the city, as are the Gate of Enemies, the Hall of Chiefs, and the Avenue of Gates; the city is known to be some 21° west of Gathol, see Addendum; (224,234)
- b. 5; country whose eastern boundary is known to lie some 10° west of the western boundary of the land of Gathol; cities of the land include Manator, Manataj, and Manatos; O-Tar, Jeddak, succeeded by A-Kor, Jeddak; the land is self-famed for the justness of its laws but is primarily notable for its intense interest in the game of Jetan, Martian chess, which it plays with live men and women, often to the death; size of the country is unknown; (234)

Manatos: 5; second city of the land of Manator; U-Thor, Jed, called The Great Jed throughout the country; location not given; (262)

Marentina: 3,10; "A principality of Okar"; Talu, Prince (later Jeddak of Jeddaks of the North); semi-independent of Kadabra, the capital of Okar, as it lies in a valley whose entrance is so narrow that 12 men could hold it against a million; (122)

Marshes, the Great Toonolian: see Toonolian Marshes, the Great

Morbus: 9,11; built in "prehistoric" times by a now-extinct people; rebuilt by Ras Thavas, the Master Mind of Mars, after he fled there from his laboratory near Toonol; Ay-mad, a synthetic man, Jeddak of Morbus for a time; the city is situated on the northern edge of an island in the Toonolian Marshes, with a low range of hills to its south; now presumably destroyed by the fire-bombs used to destroy the monster from Vat Room number 4; (29)

Mountains of Otz, the: see Otz, the Mountains of

Mountains of Torquas, the: 4; surrounding the valley of Lothar, some 150 haads north of the southern boundary of Torquas; called the Lotharian hills by the Lotharians; (35)

Okar: 3,4,5,9,10; "Land of the yellow men"; on the North Polar icecap; Salensus Oll, Jeddak of Jeddaks of the North, succeeded by Talu of Marentina and, briefly, Hin Abtol of Panar; includes principality of Marentina and the city of Illall, plus other cities, and the capital, Kadabra; all the cities of the land are domed against the cold; (123)

Ombra: 8; a country of Ladan (Thuria); (305)

Omean, the Sea of: 2,3,4,5,7; "The buried sea"; lies some two miles beneath the Lost Sea of Korus, which it drains, and apparently extends under Korus and Dor, the Otz Mountains, and the Otz Valley; though larger than Korus, it of course only lies under parts of these places (in the direction of the mountain entrance) or they could not remain in place over it; the land of the Black Pirates, the First Born; (95)

Ompt, the Island of: 9; island in Toonolian Marshes, between Morbus and Phundahl; inhabited by the marsupial Goolians; Anatok, Jed; capital, Gooli; unimportant and almost inaccessible; (218)

Onvak: 10; city of invisible men in the valley of the Forest of Lost Men; an offshoot of the tribe of the city of Invak; (263, only mention)

Otz, the Mountains of: 2,3,4; "Otz Mountains. Surrounding the Valley Dor and the Lost Sea of Korus"; the mountains reach a height of some 5000 feet above Korus; the River Iss flows under the mountains at the Golden Cliffs; the mountains are fortified all the way around by the Holy Therns, against the Black Pirates, though now of course there are very few therns and the Black Pirates are generally at peace; (30)

Palace of Peace, the: 4; in the city of Ptarth; in it are located the embassies of foreign powers; (15)

Panar, or the land of the Panars: 10; a country in the North Polar region some distance from Okar; capital, Pankor; jeddak, Hin Abtol (later Jeddak of Jeddaks of the North); (67,72)

Pankor: 10; capital of Panar; Hin Abtol, Jeddak; a glass-covered city in the North Polar region; resembles Kadabra, but is much smaller; location other than "at icecap, North Pole" impossible; (182)

Pedestal of Truth, the: 2,3; beside the Throne of Righteousness in the Temple of Reward, in Greater Helium; (174)

Phundahl: 6,9; city ruled by Xaxa, Jeddara, who died of frothing fits at the end of MASTER MIND and was succeeded by Dar Tarus, Jeddak; lies at the western end of the Great Toonolian Marshes; religion of the God Tur, a gasser; possibly the least-advanced civilization of any of the red nations; (376)

Pit of Plenty, the: 3; in Kadabra; place of punishment by starvation and temptation; (152)

Polodona: 5; Barsoomian name of "Equator", used only once in entire corpus; (142)

Ptarth:

a. 2,3,4,5,6,7; city, capital of the land of Ptarth; Thuvan Dihn, Jeddak; one of the great cities of Barsoom; prime reference point -- see Addendum; (183)

b. 2,3,4,5,6,7; "A Martian kingdom"; Thuvan Dihn, Jeddak; (183)

Rasoom: Barsoomian name for the planet Mercury.

Raxar: 10; sacked by the Panars under Hin Abtol, on their way from Panar to Gathol; presumably a city; ruled by a jed; is mentioned only once; as to its location, what can I say? It lies somewhere between Panar and Gathol; (196)

River Iss. the: see Iss, the River

Sea of Korus. the Lost: see Korus, the Lost Sea of

Shador, the Isle of: 2; "Island in Omean used as a prison"; lies against the northern shore of the Sea of Omean; (95)

Syl, the river: 7; flows through the valley Hohr near the city of Ghasta; (116, only mention)

Tarids, the castle of the: 8; on Thuria; last abode of the Tarids, who are invisible (through mental power); Ul Vas, Jeddak of the Tarids, Son of the Fire God; (187)

Temple of Reward, the: 2,3; "In ((Greater)) Helium"; containing a vast, circular courtroom, the Heliumitic hall of justice; the building is domed, and serves also as temporary lodgings for returned wanderers of eminence and prisoners of note; (172)

Temple of the Sun, the: 2,3; lies in the inner court of the Golden Temple of Issus, containing a circular chamber with 687 rooms that revolves once every Martian year through the solid rock, each room being thereby open once every year; (214)

Throne of Righteousness, the: 2,3; "In the courtroom of ((Greater)) Helium"; a platform which stands in the center of the Temple of Reward; (174)

Throxus: see Throxus

Throxus OR Throxus: 4,5,10; "Mightiest of the five oceans" of ancient Barsoom; its only remnant is the salt marsh that surrounds the city of Gathol; Horz and Lothar were two great cities built on its shores, and Gathol was built on one of its islands; it is the only one of the five seas whose name is to be found in the Works; in the earlier books it is spelled Throxus, but later Throxus, the latter spelling probably the more ancient since the million-year-old-Horzans use it, in LLANA; (76)

Thuria: Barsoomian name of Phobos, the closer, larger, faster moon of Mars.

Thurian Tower, the: 5; one of the Towers of Jetan in the city of Manator; (244)

Thurds, the land of the: 4; we know only that the Thurds, a horde of green men, are the ancient enemies of the hordes of Torquas, so presumably the land of the Thurds is near Torquas, vide the possibility that the city of Warhoon is actually inside the lands of Warhoon's mortal enemies, the Tharks; (96)

Tjanath: 7; city well to the southwest of Jahar; Haj Osis, Jed; see Jahar Complex, discussed in Addendum; (24)

Toonol: 6,9; city ruled by Vobis Kan, Jeddak; lies at the eastern end of the Great Toonolian Marshes, to which it gives its name; the people of Toonol are perhaps unique on Barsoom for having no god and no religion, but rather have raised the fighting ethic of the planet to the level of abstruse philosophy; they enjoy studying Earthly World Wars through their amazing telescopes; (372)

Toonolian Marshes, the Great: 6,9,11; perhaps Burroughs' most carefully worked-out area; we know that the Marshes are 1800 miles long on an east-west axis, that they reach a maximum width of 300 miles; the cities Toonol, Phundahl, Morbus, Duhor, Amhor, and Ptarth are located with precision in relation to the Marshes; the Marshes themselves are described in loving detail, forming the greater part of the background of SYNTHETIC MEN and a good deal of MASTER MIND; however, see Addendum for overall discussion; the Marshes are the last large remnant of the mighty seas that once covered much of the surface of Mars; (397)

Torquas

- a. 5,7; deserted city now inhabited by a tribe of green men who take their name and the name of their land from it; Hortan Gur, Jeddak; one of the most magnificent and powerful cities of ancient Barsoom; see Addendum; (28)
- b. 7; the Gulf of Torquas, term still applied to it, though now merely a dead sea bottom; Kanator is situated on what was its southernmost shore; (36)
- c. 4,7,10; a small land ruled by Hortan Gur, Jeddak; the hordes of Torquas are greatly feared throughout the southwestern hemisphere; 150 haads north of its southern boundary is the inaccessible valley of Lothar, and 200 haads south of Torquas is the dead city of Aanthor; see Addendum; (30)

Tower of Diamonds, the: 8; in the castle of the Tarids on Thuria; (225)

Tower of Thavas, the: 6,9,11; just east of Toonol, but still within the Great Toonolian Marshes; Vobis Kan, Jeddak of Toonol, drove Ras Thavas from the Tower at the end of MASTER MIND, and Thavas moved his laboratory to Morbus; in appearance it strongly resembles a medieval European castle; Ulysses Paxton was transferred from Earth to its courtyard; (363)

Towers of Jetan, the: 5; in the city of Manator; (243)

Tree of Life, the: In legend, the tree from which, 23 million years ago, all Martian life began; the story is told in full in virtually the same words in GODS, p.74, SYNTHETIC MEN, p.67, and LLANA, p.151; it flourished in the exact center of the Valley Dor and now is covered by the Lost Sea of Korus.

Turquoise Tower, the: 8; in the castle of the Tarids on Thuria; (225)

Twin Cities of Helium, the: see Helium, the Twin Cities of

U-Gor: 7; an outlying province to the southeast of Jahar; once a rich agricultural land, now completely blighted, with no reptiles, insects, or birds, but only weeds and small bands of desperate cannibals; see Addendum; (199)

Valley Dor, the: 1,2,3,4,7,8,10; "Valley of Heaven"; lies within the Otz Mountains and surrounding the Lost Sea of Korus; (90)

Valley of the First Born, the: 10; long valley about ten miles wide and perhaps two miles deep; has rivers and "at least one lake"; heavily forested; capital, Kamtol; Dexus has the title Jeddak of the First Born; allied with First Born from South Pole, upon occasion; lies between Horz and Gathol, north of and near Gathol; (91,100)

Warhoon:

- a. 1,2,3; dead city inhabited by a horde of green men; Bar Comas, Jeddak, later slain by his chief jed, Dak Kova, thereupon jeddak; appears to be located within the boundaries of the land of Thark; (120)
- b. 1,2,3; land of the hordes of Warhoon, green men constantly at war with Thark; location indeterminate, possibly not containing the City of Warhoon; Bar Comas, Jeddak, later Dak Kova, Jeddak; (120)

Warhoons of the South, the lands of the: 2,3; Kab Kadja, Jeddak; location indeterminate, though extremely close to the South Polar icecap; (147)

Xanator: 7; dead city on the southern shoreline of the Gulf of Torquas, between the cities of Torquas and Jahar; see Addendum, Jahar Complex; (32,54)

Zodanga: 1,2,8,10; "Martian city of red men at war with Helium"; Than Kosis, Jeddak, slain when the city and power of Zodanga were destroyed by John Carter and the Tharks, succeeded by his son Sab Than, Jeddak, slain half an hour later by the Tharks, succeeded by Zat Arrras, Jed, after Carter refused the title from Tardos Mors as a tributary of Helium, Arrras' suicide at the end of GODS apparently leaving the title open; the city was razed to the ground and later rebuilt, presenting in some ways the most difficult problem in the entire Works, for which see Addendum; (178)

Zor: 12; city 380 miles southeast of Helium.

IV ADDENDUM: A BRIEF SURVEY OF CERTAIN PROBLEMS IN LOCATION

The Zodanga Problem

The exemplar of difficulty in Barsoomian map-making is the case of the city of Zodanga. From information given in PRINCESS, it is perfectly clear that Zodanga is 1000 miles northeast of the Twin Cities (PM,p.216). Or rather, if one corrects for the haad in the early books (though in the first three books distances are always given in miles), some 900 miles. At any rate, the distance amounts to some 23°, and the direction is northeast from Helium, which from LLANA (LG,p.16) we know lies on 30° south latitude.

But SWORDS specifically states (SwM,p.15) that Zodanga is situated at "about Lat. 30° S., Lon. 172° E."; in other words, on the same parallel of latitude as Helium -- indeed SWORDS states also that Zodanga lies 1900 miles east of Helium (1900 miles = approximately 50°).

H.H. Heins brings this up (in THE DREAM WEAVER, see bibliography) among other conflicting points he had discovered, and it does require some ingenuity.

Of course it is impossible, on the surface, to reconcile the two bearings and distances given concerning Helium/Zodanga; east is not north-east, 1900 miles is not 1000 miles. You can't demonstrate that it is merely a slip of the pen -- as when in CHESSMEN (CM,pp.146,158) the Scarlet Tower is moved from Greater to Lesser Helium (and toppled to the ground into the bargain)...by pure accident, of course, since the two towers are to be found elsewhere throughout the Works, apportioned to their proper city each time. It is not a mere slip of the pen with Zodanga because both direction and distance are radically different in PRINCESS and SWORDS.

Nor is it a case where one of the characters has given information which can be demonstrated to be in honest (or otherwise) error, as when Sola, the green woman, tells John Carter that Helium is some 500 miles northwest of the City of Thark. In that case, we know that the land of Thark extends from 40° to 80° south latitude, and that the City of Thark is in the far southwestern corner of the land. Even if, in the Ivie hypothesis, the land of Thark is Nevada-shaped, with the City of Thark at "Reno," on approximately 60° south latitude, 500 miles is little more than 11° , and Helium thus could hardly be at latitude 30° south (which is unquestionably the case, since it is Sola's word against John Carter's, who ((LG,p.16)) knows more about areography than anyone else). Thus Sola is mistaken, and the true distance from Thark to Helium is more than twice the figure she gave. But the Zodanga/Helium problem does not fall in this category because all the relevant facts are given to us by Carter himself to the reader, not to a possible enemy (so he can't be trying to fool anyone, as Carthoris may in THUVIA).

I merely propose that both locations are correct. Consider: by the end of PRINCESS, Zodanga has been razed to the ground. Its million-man army has been dreadfully defeated. What remains, is subject to Helium. By the beginning of the action of SWORDS, decades later, the city has been rebuilt. It is brand-new.

So it becomes quite easy to believe that it was rebuilt in a different spot; nowhere in SWORDS is it specifically stated to be on the same spot, nor is any mention whatsoever made of structures that might have been expected to survive the razing of Zodanga; indeed, Carter mentions (SwM,p.24): "It was the old city with which I had been most familiar, and I had visited the rebuilt Zodanga upon but one or two occasions since."

This solution has the inestimable virtue of explaining away the entire supposed contradiction, which otherwise would pit the direct statements of PRINCESS and SWORDS against each other in a fashion devastating to one or the other.

Horz, Exum, and the Barsoomian Greenwich

Placing Horz and Exum on the same longitude makes it unnecessary to make tedious corrections between locations given in relation to one and the other. Making them both lie on longitude 0° results, furthermore, in no additional problems. In the only book, LLANA, in which they are both mentioned, in fact, they are mentioned together. Carter (LG,p.16) crosses the Equator "sixteen hundred miles east of Exum, the Barsoomian Greenwich," on his leisurely way northwest from Helium to Horz, 5000 miles away. The figure 5000 miles we can take a bit casually; Carter is speaking casually in this passage anyway, since he speaks of crossing only two waterways the whole journey, which is flatly impossible (Carter's statements tend to be like the greater part of a John Dickson Carr story -- they generally are accurate as far as they go, but they can be terribly incomplete). Carter means he only noticed crossing two canals; after all, he was taking this trip to be alone and to think on his multifarious problems as Warlord of Mars, and it is not surprising that he would be in a somewhat abstracted state of mind. Considering LLANA for what it represents, part of the memoirs of a distinguished and important man of his world striving to tell the truth about himself at all times, the statement about "two canals" can even be thought of as a deliberate attempt to portray to the reader and student the effects in him of such an abstracted, solitudinous state of mind.

The point is, however, that putting Horz well north of Exum on the same degree of longitude works out beautifully; and for the cynic who asks why the same

term, "Barsoomian Greenwich," is used in various books for two entirely different cities, the answer is purely that it is a matter of usage. For when Certer was applying the term to Horz, he was speaking in the earlier books, as a man who had lived on Mars for many years, true, but as a man whose wanderings had not yet taken him over the entire planet (save insofar as in wild and hurried adventures), as a man whose title for the first three books was "Prince of Helium" -- in short, as a Heliumite, those Barsoomians who speak of Horz as the longitudinal determinant.

When he applies the term to Exum, however, he himself is by this time no longer merely a wandering adventurer from Helium, but the mighty Warlord of Mars, a man whose vast familiarity with the details of the planet's topography, history, culture, language spoken and written, are probably unmatched (LG,p.16). He has learned that by far the greater number of people in the other cities, lands, and empires of Mars scorn the use of Horz in the Greenwichian context, and prefer the more scholarly and traditional reference to Exum. Horz was, a million years ago, probably the greatest city on Mars, the seat of learning and culture; no description, however, is given of Exum. It is as if modern Greeks made London stand for O^o, when a Greek visiting London will discover they speak only of Greenwich, a town the Greek might otherwise never hear of.

So again we have looked for the simplest conceivable answer, and again we have found that it solves more problems, and is more easily defended, than any other.

The Toonolian Marshes Complex

I have referred you to this Addendum for a discussion of the vicinity of the Toonolian Marshes; there are only a few real problems, though, since Toonol, Phundahl, Morbus, the Marshes themselves, Amhor, Duhor, the Artolian Hills, all are placed without any difficulty, as the Texts give copious references to distances, compass bearings, etc.

But....there is the curious paragraph in MASTER MIND (MMM,p.410) which Larry Ivie and I were not able to work out a common opinion on: "Ptarth....lay at a considerable distance to the west of Phundahl and a little south and about an equal distance from Duhor, which lay north and a little west of it. An inhabitant of Ptarth, I reasoned, would know much of the entire country included in the triangle formed by Phundahl, Ptarth and Duhor."

Now, I read this passage (the specific knot being "a little west of it" -- is "it" Ptarth or Phundahl?) and correlated it with the other specific information in MASTER MIND and SYNTHETIC MEN, and decided that, since this other information puts Duhor some 4000 haads roughly northwest of Phundahl, the only place to put Ptarth is about 4000 haads south and a trifle to the east of Duhor. The Map will show you the alternative reading of the passage, which takes into consideration the known location of Duser (15° north latitude, 20° east longitude) and the known distance and direction of Duser to Ptarth (TMM,p.122: Ptarth lies 13,500 haads east of Duser).

Here we are up against measurements which have to be made on a globe, which the Genial Mapmaker worked on and which I, cheap bastard that I am, did not. On a flat map, with distances of such magnitude, without at least an MS in math, the distortion becomes too great for me to cope with. Perhaps if I asked Ley or Asimov....at any rate the shape of the triangle remains unproven either way.

A very serious flaw is opened up next, however, upon considering a couple of seemingly harmless statements in SYNTHETIC MEN (SMM,p.16): "...we were some

4500 haads southeast of Duhor; or, more accurately, 150° W.Lon., from Exum, and 15° N.Lat. This placed us about 2600 haads southwest of Phundahl, which is situated at the western extremity of The Great Toonolian Marshes."

Ok, 4500 haads southeast of Duhor = 2600 haads southwest of Phundahl -- that matches my triangle pretty well, wherever Ptarth may be. But wait a minute. SYNTHETIC MEN (SMM,p.14) clearly states that "Duhor...lies some ten thousand five hundred haads, or about four thousand earth miles, northwest of Helium..." Northwest of Helium. Helium is 10,500 haads southeast of Duhor. But -- 4500 haads southeast of Duhor is 150° west longitude, 15° north latitude! The 6000 haads from that point on to Helium amounts to 60° , and even if Helium were due west or east of that point, 60° is such a short distance that it puts Helium at least a third of the planet away from where we have previously computed it to be, from the given position of Zodanga! And of course it is not "west or east of that point," it is 6000 haads further southeast. Fortunately, that will put Helium on 30° south latitude, so at least one constant remains undesecrated. But what of this tremendous mixup in longitude? Helium is roughly situated at 120° east longitude, Duhor (by an angular calculation) lies roughly between 120° - 130° west longitude, or almost exactly on the other side of the planet -- far more than the given 10,500 haads, more even than 18,000 haads, the equatorial distance from 120° east to 120° west, since Helium lies 30° south of the Equator and Duhor some 35° north of the Equator, another 6000 haads; a rough approximation from this shows that Helium and Duhor must be over 20,000 haads apart.

Of course, that's if you proceed southeast from Duhor to reach Helium. By great circle, no point on Mars can be more than 18,000 haads from another (discounting the relatively miniscule planetary pear effect), as that equals 180° -- and of course no point on a sphere's surface can be more than 180° from any other point. Going southwest from Duhor, Helium must be only some 15,000 haads ...which is still half more than the given distance.

It is possible to justify any apparent contradictions among the Canonical Volumes, and Larry did so for the Map; but the justification is based on his work on a globe, and cannot be briefly transcribed here. In some dissatisfaction with the still rather superficial aspects of some of the surrounding discussions of areographical problems, I have contemplated publishing, separately, my quite lengthy book-by-book analyses of these problems as they occur successively in the texts. These analyses have proceeded over some dozens of pages of draft and into the fourth book of the series. If readers of the GUIDE thirst for more intricacies, there may be more forthcoming.

The Aanthor/Manator/Jahar Complexes

There is one other general area of Mars that is a bit difficult to sort out, at first glance, falling into three categories: 1: Aanthor, Lothar, the Lands of Torquas, and the Torquasian/Lotharian Mountains/Hills; 2: the City of Torquas, Bantoom, and the land and city of Manator; and 3: Jahar, Tjanath, Xanator, Ghasta, Jhama, U-Gor, and, again, the city of Torquas.

1: This group is well defined in relation to one another. Aanthor lies in 50° south latitude, 40° east longitude, and is some 200 haads south of the southern bounds of Torquas. This is pretty neatly laid out, but there is a minor flaw, since before telling us that Aanthor is east of Horz, Burroughs twice (TMM,pp.24,27) states that Carthoris knows he is in the western hemisphere through the fact that his destination compass has been slogged by a saboteur and only the western hemisphere controls are still operable.

Still, this is not to say he necessarily reached the western hemisphere, since the slogging of the controls may easily have disturbed the balance of the device sufficiently to throw the saboteur's fix off the setting he jammed its controls on.

2: The second set of locations requires a trifle more attention. We do know definitely that the land of Manator begins at a point a little more than 10° west of the western boundary of the land of Gathol. Gathol is known to extend from 10° west longitude to 20° west longitude, so Manator begins at approximately 30° west longitude, and is in the same general latitude as Gathol (i.e. 0° to 10° north latitude).

Backtracking, we find the valley of Bantoom lies some three days (drifting flight in a crippled flier) southwest of Manator. Now a flier makes some 200 miles an hour at top speed, but we have no idea how fast one would go, when merely being carried along by the winds. Probably the winds were not more than 20 mph or so, which would put Bantoom within a thousand miles of Manator (or within 30° south of the Equator).

But: Tara is blown by the storm for 7000 haads to the northwest of Helium, passing over the city of Torquas, and doesn't come down after that for another day or so, when she lands in the hills surrounding Bantoom. One would assume that she is still northwest of Helium, yet Bantoom, we have found, lies in much the same latitude as Helium....this is an example of how we have to double check Burroughs' own words; when we do in this case, we find nothing to tell us that the storm couldn't have shifted its directions and blown her back down in a southwesterly direction -- and, indeed, it must have, for that would put her right where we know Bantoom to be.

And so also we see that much the same thing must have happened to Gahan's cruiser Vanator, caught in the same storm, save that at the time Gahan falls to the ground from it, it was passing considerably to the southeast of Bantoom.

3: The third set of locations is complicated; but the same techniques of analysis brought to bear on the problems will produce the same result. We find that Tjanath is 6000 haads southwest of Xanator, which is a dead city on the southern shore of the now-dried Gulf of Torquas, and that in between Tjanath and Xanator lies the city and the lands of Jahar. Jahar in turn is some 5000 haads from the tower of Jhama, which seems to lie to the south of Jahar. Ghasta lies to the southwest of Jhama, but how far is indeterminate, save that in a craft blown by the wind it is less than a day's flight. A thousand haads southeast of Jahar lies one of its provinces, U-Gor, which we also know to be about 2000 haads southwest of Xanator. Tan Hadron estimates U-Gor to be some 7000 haads due south of Gathol....and there you are, bing-bing, seven names.

+++++ +++++ +++++

This process of stringing together locations in the fashion indicated will nearly always prove successful, and is actually the prime technique to use in such inquiries; in such cases in the Canon where it has been insufficient, I hope that I have (Dusar aside for the time being) offered adequate explanations for whatever apparent anomalies the Works seem to have presented.

The only anomalies that still do bother me occasionally are those about the real name of such-and-such a place; i.e. he speaks variously of the Valley Dor, the valley Dor, the Valley of Dor, and Dor Valley. Which it is, seems shrouded in ultimate mystery; and this type of laxity is to be found throughout the Works for dozens of names. But, ultimately, this is a question of style.

V ORTS AND ENDS: ESSAYING SOME FINAL COMMENTS ON BURROUGHS (Or, Who's Afraid of the Big Bad Thark?)

Even after all the foregoing sound and fury, I am not going to try to make Burroughs seem like a long-lost Tolkien; he wasn't. For one thing, significantly, there is little music in his prose; there are, as a matter of plain fact, no songs anywhere in the Mars books, and precious few passing references even to the existence of songs. So I'm not going to fight the problem; I promise you I have no intention of coming on at the end like T.S. Eliot pushing Rudyard Kipling as a great poet.

Unquestionably, Burroughs was a remarkably inventive writer, with an immensely strong narrative drive. The flavor of his Mars books has been paid the supreme compliment of having been imitated by numberless writers. The recent gaffe of the Burroughs heirs (in what must be the single worst flub of literary history, monetarily at least, managing to let the copyrights on about half his books get away from them by forgetting to renew) is making it possible for many of us to rediscover these still oddly-compelling works. The Tarzan books have been with us continually, but the Mars books have seemed to fade away. Well, and how good were they, as fantasy? Or as science fiction, on which they were such a strong influence?

Of the differences between ERB and standard sf, at least one, surprisingly, puts him one up on the literary scale, or at least on the story-telling scale, above much sf (and a good deal of fantasy). It is this: Burroughs does not explain everything (sf seems compulsive in this regard, as if it were dancing to the same slow serious formal structure-music of the classical detective story). Sf in this respect generally ignores a compelling narrative technique -- they have no one like John Carter, who says, "God alone knows how old I am. I can recall no childhood, nor have I ever looked other than I look tonight...", and then by God leaves it at that. Not only, then, is Captain Carter possibly immortal, for unexplained reasons (Captain Hedrock was too) but he never knew childhood, and this overwhelmingly fascinating concept is forever left hanging, adding to the man an air of ageless total mystery, a touch of Poe, of Eddison, of Cabell -- even of Tolkien, for do we not see Sauron only at the last, in a moment of incredible power incredibly destroyed, surging out in a Shadow over the armies, clutching futilely, and blowing away in the wind? Burroughs too knew to keep some things hidden. (And besides, Hedrock is always fiddling around trying to make everybody else immortal...)

In his recent "Notes on Tolkien" Professor Lin Carter puts forward inventiveness in names as a fair index to the IQ (Imagination Quotient, but don't blame it on Lin) of a fantasy writer. And it's a nice point, except that almost anybody can invent a couple of good names here and there. Thus the standard must be enlarged, in all justice. How many bad names does your putative master indulge himself in?

E.R. Eddison, one of the kings of fantasy, was Lin's first example of a superlative master in the genre: but Eddison's imagination also tended to allow him the use of names such as Witches, Demons, Goblins, Impland (not so bad that, though), Gaslark ("Gaslight" is the word I see every time), and, for variety, Corsus, Corund, and Corinius...in three readings of THE WORM OUROBOROS I have managed to not be bothered by the Witches and Demons any more, but I'm damned if I ever expect to get Corund, Corsus, and Corinius straight.

I will not multiply examples from other writers; the point I am getting at is that Burroughs also has excellent names and that it is no real black mark against

him that many of his names are...well, far from excellent. As some of his less happy inventions I put forth Xaxa, Pan Dan Chee, Bal-Zak, Gor-don (Martian names, mind you, straight pure Martian), Ghek the kaldane, A-Kor, U-Dor, O-Tar, Lan-O, E-Med...and the odd similarities of "John Clayton" and "John Carter," and of "Carter of Mars" and "Carson of Venus." (And passing over Thuria, a city in Pellucidar in the Land of Awful Shadow.)

But the good ones! I commend to you, first, the title "Jeddak," probably the best invented synonym for royalty I have yet heard (far better than Kline's "Rad," "Vil," "Zovil," "Sovil," "Movil," "Novil," etc., pitiful imitations). "Throxus, mightiest of the five oceans." "Panthan," term for a soldier of fortune. "Jetan," Martian chess (has anyone ever tried to play it? There seems to be no reason for it not to be just as playable as chess; and its slightly more complex play, due to the eight additional pieces and thirty-six additional squares, would seem to make it fall interestingly between chess and three-dimensional chess). Then the name for Mars itself, "Barsoom." "The incomparable Dejah Thoris"; and then the epic swing of that thunderous title, "John Carter, Jeddak of Jeddaks, Warlord of Mars!" That's the moxie, baby, that's the clear quill!

There are many small and large flaws in Burroughs; but the fact remains that despite his flaws he still made millions of bucks. What compensated for the awkward prose style and the lapses of memory?

Well, for one thing, he was endlessly inventive. Something new seems always to be coming along. And he combined this inventiveness with a narrative drive that can be irresistible when at its best. No other writer ever had the audacity of Burroughs, in finding ways to get his heroes out of tight spots. Carter never gives up hope -- in the later books, "I still live" becomes the motto of a number of his adventurous followers -- and, therefore, quite convincingly, he is always ready no matter what the opportunity. Except for Charteris's "Saint" (whom I cannot quite picture on Mars), I know of no one but Burroughs who could convince me that a man could fight his way out of an empire filled with enemies, attack another emperor on his throne, carry off the princess -- and then have her get caught by someone else in the next chapter and have it all to do over again.

That gets wearing after a time, of course. If there's more than 35 pages left in the book after a big escape, you know damned well Carter's going to get it in the neck one more time before it's done -- and no writer should be that predictable.

In connection with this, it is unfortunate that he was not only inventive, he was uncritical. He lets himself go time and again, to wallow in endlessly boring pages about the kaldanes and the rykors; he allows himself a steady succession of variously insane jeddaks, book after book, incident after incident. And always he gives somebody the line, "You can never escape from us -- the mighty Plaid Men of Jupiter," or whatever. It is all very reminiscent, at times, of the less-inspired Oz books. (Though in fairness to Burroughs I must admit that in LLANA Carter himself jokes about how everyone is always giving him that bit about escape.)

The point remains -- and if I hadn't discovered this I wouldn't have bothered doing this article -- Uncle Eddie was a clever old guy in his way, able to talk his way out of corners with often the coolest line of patter since Poe discovered the detective story. And when the patter failed, you can always

stick in his statement: "If there be inconsistencies and errors, let the blame fall not upon John Carter, but rather upon my faulty memory, where it belongs."

-- A noble statement, that, and quite an important one for those who like their fantasy novels to hang together. There are inconsistencies and they do hinder suspension of disbelief. But what of it? Barsoom is still Barsoom; and if Burroughs forgets whether Horz or Exum is the Martian Greenwich, it is not really hard to understand how a man could absently switch landmarks on a world of his own creation over a period of 35 years and a span of 10 books. It does not bother me deep down inside that in Chapter Two of CHESSMEN, the Scarlet Tower is in Greater Helium, and two chapters later in Lesser Helium. I am not even bothered by those two Barsoomian Greenwiches. Such things, after all, can be explained; in fact, I have done so. The real truth is John Carter fighting his way across an entire planet from South Pole to North, for his incomparable Dejah Thoris -- and so it will remain.

(Here I might point out that reputable writers of historical novels -- and even respectable writers and philosophers of history, as Toynbee has just written a whole book to admit -- also forget where cities and rivers are, or how old someone is at a given time in history. And in as magnificent a picture as RICHARD III, King Edward IV (Sir Cedric Hardwicke) is portrayed as an elderly man, almost doddering, easily seventy-five years old in appearance -- when in actuality Edward died when he was only 41: to the end he was a corpulent, wenching, hellraising, altogether quite suitable grandfather for Henry VIII.)

+++++ +++++ +++++

Inconsistencies...but I insist they are always explicable.

In MASTER MIND, Valla Dia, the heroine whose brain has been switched into the body of the incredibly ugly Xaxa, Jeddara of Phundahl, says, while telling her life story to Vad Varo/Ulysses Paxton, "Two great nations went to war because of ((my beauty)); and perhaps my father lost his throne or his life." Now, she comes from Duhor, Duhor has been at war with Amhor (or possibly with Helium), q.e.d., her father is the Jeddak of Duhor, and the surprise-revelation of this at the end of the book thus falls considerably flatter than most. The reader is well aware that Paxton has no excuse for being surprised.

Actually, though, is the reader really expected to be surprised? It is telegraphed so thoroughly in every similar case, that I suspect Burroughs was instead giving the reader a kind of extra bonus of being able to feel he had a real one over the characters; he watches the characters being surprised, and feels a gratifying superiority -- really quite a clever touch, then, because Burroughs would otherwise constantly be running the risk of making his heroes uninterestingly perfect. Even Doc Smith didn't make his galaxy-galloping heroes omniscient, deciding that he'd have to go out of his way to humanize his supermen with outsize failings.

Burroughs' way with this device of surprise has its own peculiar wacky charm, too. There has never been, in the real world throughout all history, as great a number of naive feckless unappreciative dolts since time began as are gathered in the ten Mars books.

A stroll through the collected works of John Carter, Ulysses Paxton, Tan Hadron of Hastur, and Vor Daj, brings us up against situations such as this, time and again: John Carter, protecting Dejah Thoris while fighting a tremendous battle in the throne room of Salensus Oll, carries on a conversation with her for

a good three quarters of an hour after she's been whisked away from behind his back by one of the villains -- he never notices she's gone. Of course, when he finally does look round, he's staggered. Never occurred to him. It wouldn't occur to any Burroughs hero. I visualize generations of Burroughs readers laughing up their sleeves at the invincible hero of this scene. But not at Burroughs. Never at Burroughs. That's why he made millions.

+++++ +++++ +++++

Finally, in the long run, I maintain that it is not so important, after all, the little explicable errors and the big explicable errors. It is not even so important that he does things like mixing up the mystique of whether men ever kill women, or that he never quite makes it clear about that 1000 year lifetime (would Martians be immortal if they didn't take that last trip down the Iss?).

His one real flaw, the one that really cannot be explained or forgiven, is the great number of staggeringly magnificent concepts he pours forth that he never really comes to grips with. I will mention only one, and then leave off.

He never really gets into the implications of such things as the extreme longevity. We are left with the fact that we can at best only assume he wishes to imply that the deadly attrition of constant combat thins out the problems with the population. There are scattered comments, mildly ironic in tone, on this or that character falling in love with another one, old enough to be the first's grandparent. But, in that long run I spoke of, it is left to science fiction after all, to mine deeply in the ironies, the comic ironies at least, of, say, some twenty-year-old being in love with a nine-hundred-year-old who if anything looks younger than the twenty-year-old. He had the nerve to do it -- he was not averse to putting in real shockers from time to time -- but he didn't do it, and there's an end to it.

+++++ +++++ +++++

No, but one little bit more -- shockers you want? What about the women being toasted alive over open flames in FIGHTING MAN? The women in SWORDS suffering excruciating deaths at the hands of Fal Sivas, their skulls removed and their brains being stirred? What about the beautiful women in GODS being selected by Thabis to be cooked for Issus' dinner that night? Gosh! Or, to really leave off with a bang, how about this dead-serious passage from page 104 of PRINCESS?:

((Carter is talking about the semi-communistic state of the green men)) "Their mating is a matter of community interest solely, and is directed without reference to natural selection. The council of chieftains of each community control the matter as surely as the owner of a Kentucky racing stud directs the scientific breeding of his stock for the improvement of the whole.//In theory it may sound well, as is often the case with theories, but the results of ages of this unnatural practice, coupled with the community interest in the offspring being held paramount to that of the mother, is shown in the cold, cruel creatures, and their gloomy, loveless, mirthless existence

....the green Martians are absolutely virtuous, both men and women....but better far a finer balance of human characteristics even at the expense of a slight and occasional loss of chastity." ((my italics))

Better by far indeed!

EXPLICIT

BIBLIOGRAPHY

(Being a brief bibliography of the Mars Series, including first magazine publication, first edition, and edition used for this article. Three non-fiction publications of related interest are also included.)

A PRINCESS OF MARS (1912, All-Story)

McClurg, Chicago, 1917, 327

Methuen, London, 1952, 252

THE GODS OF MARS (1913, All-Story)

McClurg, Chicago, 1918, 348

Methuen, London, 1952, x+233

THE WARLORD OF MARS (1913-14, All-Story)

McClurg, Chicago, 1919, 296

Methuen, London, 1951, 221

THUVIA, MAID OF MARS (1916, All-Story)

McClurg, Chicago, 1920, 256

Dover, New York, 1962, 1-128 (with CHESSMEN and MASTER MIND, below)

THE CHESSMEN OF MARS (1922, Argosy)

McClurg, Chicago, 1922, 375

Dover, New York, 1962, 129-354

THE MASTER MIND OF MARS (1927, Amazing Stories Annual)

McClurg, Chicago, 1928, 312

Dover, New York, 1962, 355-499

A FIGHTING MAN OF MARS (1930, Blue Book)

Metropolitan Books, New York, 1931, 319

Canaveral, New York, 1962, 249

SWORDS OF MARS (1935, Blue Book)

Burroughs, Tarzana, 1936, 315

SYNTHETIC MEN OF MARS (1939, Argosy)

Burroughs, Tarzana, 1940, 315

LLANA OF GATHOL (1941, Amazing Stories, as four separate stories)

Burroughs, Tarzana, 1948, 317

JOHN CARTER AND THE GIANT OF MARS

Amazing Stories, January 1941

Amazing Stories, April 1961

SKELETON MEN OF JUPITER

Amazing Stories, February 1943

EDGAR RICE BURROUGHS/A BIBLIOGRAPHY, by Bradford M. Day, Science-Fiction and Fantasy Publications, Woodhaven, N.Y., 1962, 45+2

THE DREAM WEAVER, ed. by Alvin Fick, Pinion Private Press, Fort Johnson, N.Y., 1962, (20)

A GOLDEN ANNIVERSARY BIBLIOGRAPHY OF EDGAR RICE BURROUGHS, by Henry Hardy
Heins, Albany N.Y., 1962, 122+1

LAGNIAPPE: THE READER'S GUIDE TO SASOOM

(All references are to Skeleton Men of Jupiter; page numbers are as in the February, 1943, issue of Amazing Stories.)

City of Han Du: Apparently a nameless city; Han Du is Carter's friend, husband of O Ala; all houses in this city are coated with the sand of invisibility, and identified by their owners by means of small reeds planted outside. This invisibility is for defense against Morgors. City is on the seacoast, west of the man-tree jungle. (44)

City of Morgors: Apparently a nameless city; Bandolian, Emperor; city measures 16 x 25 miles, has an artless rectangular layout, is, in Carter's words, "as depressing as Salt Lake City from the air on an overcast February day." City is inland, east of the man-tree jungle. (18)

Eurobus: Sasoomian word for Sasoom, q.v. (16)

Gorobus: Sasoomian word for Barsoom. (19)

Morgors: Skeleton men of Jupiter; dominant, warlike race. (14)

Sasoom: Barsoomian word for Jupiter. (12)

Savators: Blue men of Jupiter, but appear purple in pink volcanic light (which is only major natural light source on Sasoom). Most are enslaved by Morgors, but a few free communities exist. Savators are apparently like normal humans in all regards except their blue skins. (21)

Village of Zan Dar: Apparently a nameless village; Zan Dar is Carter's friend. Village is located on the side of the highest mountain on Zanor (q.v.), halfway between base and peak. (46)

Zanor: "A remote island," "a land of tremendous mountains, thickly forested with trees of great size and height." Mountains are up to 20 miles high; Zanor is in the sea west of the city of Han Du (q.v.). Contact between Zanor and the mainland is maintained by aerial means (the Sasoomians possessing both small low-altitude fliers and interplanetary ships powered by Eighth Rays and Ray L [cosmic rays] as the Sasoomian seas are racked by such terrific storms as to make navigation impossible.

NOTE: The man-tree jungle referenced above is also apparently nameless. It lies to the west of the city of Morgors, reaching nearly to the sea coast where is located the city of Han Du. Between the jungle and the city of Morgors is a (presumably grassy) plain. The man-trees are intelligent, carnivorous trees, capable of communicating with one another, and possessed of eyes, mouth, and tentacle-like, prehensile branches used to capture prey and transfer it to the mouths.

LAGNIAPPE: MAPMAKER'S INTRODUCTION

Although much effort and research has gone into the present work, it hardly stands as the last word on the subjects it covers. On the Barsoom map, for instance, there are several obvious errors. (So obvious that they were not discovered until after the first copies were printed.) The word approx. spelled aproq., for example! Or the whole region of Aaanthor being about ten degrees too high.

Yet, on a whole, this project is undoubtedly more accurate than it would have been had it been produced professionally. And I must ask the question "WHY?" A partial answer lies in the fact that professional projects are frequently faced with unreasonable deadlines. This can turn a potential masterpiece into garbage. But, with qualified teamwork, this limitation can usually be overcome to some extent. The team I am referring to most specifically is that of the editor and artist. Unfortunately, this is lacking most in the very places it is most needed.

The artist's job is obvious. He must produce illustrations that will help to sell the product--in this case, a book by Edgar Rice Burroughs. The editor's job, it would seem, would be to read the book. It is, of course, nice if the artist also reads the story before beginning his illustrations. From many works that have been appearing, I am sure that it will come as no surprise that some companies habitually inflict such tight deadlines upon their artists that this is impossible!

There are three very nice reasons for a book being read, aside from the enjoyment that may be derived from it by the editor or artist. The first is to select the most appropriate scene or scenes of the story to be illustrated--the scenes most likely to induce a buyer to purchase the publication. (Obviously, if the scene upon the cover has nothing to do with the insides, it doesn't say much for the company.) Second, is to catch errors in type-setting. Third would be to catch discrepancies between semi-finished illustrations and the text. Let's give a brief evaluation of the four companies using new artwork which have, within the past year, resurrected the name of Burroughs.

FOUR SQUARE pocket books, England: Typographical errors seem to be at a minimum, and a fairly conscientious job seems to be done on the artwork--at least on the earlier releases. The fact that the story has been read by SOMEONE is evidenced in many of the covers.

CANAVERAL PRESS: It is quite evident that the original artist himself, Mahlon Blaine, indeed read each of the books he illustrated, although the action shown in some of the scenes is not quite as described in the text. Editorially, there were numerous typos in the first releases. Unfortunately, with Burroughs complete accuracy cannot be achieved by reading just one book in the middle of a series; and so there also appeared discrepancies with details brought out in earlier books. Fortunately, the post-Blaine artists had read most of the Burroughs works many years previous, and also had the time to refresh their memories on details vital to the work at hand.

With ACE BOOKS, the editorial end also seems left completely to the artist. Fortunately, the two primary ones are also Canaveral artists; but, unfortunately, with this company, there also has consistently been the lack of time for any refreshing of memory. With no one reading the text, the result has been numerous typographical errors; many pictorial mistakes which could have been caught instantly by an editor (a blond Thuvia; completely inaccurate chessmen; the moon maid riding a centaur.....), and illustrations even being used upon the WRONG stories (Tiger Girl for Pellucidar)!

A sad last is BALLANTINE; for it is obvious that neither the artist nor the editors of their first releases EVER read the books.

Canaveral Press should receive hearty congratulations from all the fans for recently hiring an editor specifically to work upon the Burroughs material. After all, they were the company that least needed one.

--L.I.

b y L a r r y I v i e

The Face of Barsoom

It certainly would be a wonderful thing! Everyone was agreed on this. A complete chart of all the locations mentioned within Burroughs' Barsoomian stories would indeed be not only a fun thing to have, but a decided aid in orienting one's self while engaged in the delightful pastime of reliving the wonderful odysseys of John Carter, Ulysses Paxton, Carthoris, and all the other Barsoomian characters with whom Burroughs made it so easy to identify one's self.

Several immediate questions, in regard to Barsoom, arise not only for the casual reader, but for the avowed enthusiast as well....

I never was able to distinguish Mars from the other pinpoints of light in the night sky, without a good guide. John Carter, however, stared upon a brilliant jewel of red that seemed to beckon.

Barsoom was described as a planet other than Earth, which appeared to the eyes of John Carter and Ulysses Paxton, on Earth, as a brilliant red star. It is continually referred to as being Mars. Is Barsoom in reality the literal Mars, or a similar planet of another star system or dimension, seen only through the mind's eye of Carter and Paxton, or Mars as it existed at some other time, or an imaginary world existing entirely in the minds of Carter and Paxton?

As many Burroughs followers know, the scientist's view of Mars varies somewhat from the known world of Barsoom. When man shortly steps upon the red planet, it is felt that in all likelihood he will find no city of Helium, nor green men of Thark, or Warhoon, or Torquas. So, naturally, Barsoom couldn't really be Mars.

But it is.

It is the literal Mars. Barsoomian science allows Paxton, on Barsoom, to observe human life on Earth telescopically. Radio messages are exchanged between Earth and Barsoom (via the Gridley Wave). Many references throughout the series place Barsoom as both the Mars observable from Earth, and the Mars observable at present from Earth.

Burroughs also used as much data on Mars as was scientifically available at the time of his writing, in describing Barsoom and its movements, and the movements and phases of its two moons. It was Mars that John Carter alighted upon just as much as it was Africa which reared young Tarzan of the Apes. You may search every jungle and never come across Opar, so who can say that somewhere upon that very light we see within the heavens is not located an underground burrow of Kaldanes? Since it is accepted that the naked man upon the movie screen is supposed to be in Africa, so we must accept the fact of Barsoom's true location. So science could prove both wrong: why rationalize when you can relax? Ride with it.

The fact that what he had transpiring on Mars might differ from what was actually occurring -- or not occurring -- bothered Burroughs no more than it did Charles Dickens or Robert Louis Stevenson to invent happenings and locations upon Earth. Had he more accurate scientific data, he would undoubtedly have used it. As it was, he was not as far from even present theory as many people might surmise. And as each new facet of information came his way, his descriptions were expanded to include them. The first story had no clouds in the sky, and no winds. Within later stories, there were occasional clouds, sand and dust storms, and occasional winds of violent magnitude. Science was expanding, and with it, the face of Barsoom.

We might as well, then, begin the Barsoomian map with the known features of the original planet. Although the whole thing might eventually prove unsound with the real exploration of Mars, Burroughs went as far as scientifically possible in his time, so we might as well continue along the obvious path as far as is possible in ours.

The outlines we see upon the Martian sphere cannot be interpreted as in any way indicative of the continental outlines. By the time the Barsoomian seas began to recede, the land areas had become so worn down that the height of the continents was not too far above the sea bottoms. The lack of shadows upon Mars indicates no appreciable mountain heights at all. We cannot say the orange areas are sea bottoms and the green areas vegetation-covered highlands. In fact, the reverse would be more likely: the green areas might be lowlands within both sea-bottom and former land area, and the orange areas, highlands similarly distributed. Therefore, we ignore the coloration almost entirely in attempting to locate the five great sea bottoms of Barsoom and make the outline purely from the scant references found throughout the novels.

For many years I had been casually mentioning to several most qualified friends my intention of eventually constructing a Barsoomian globe. I had read most of the Burroughs books already. This had been during that period of life to which the reading of Burroughs is as important and as natural as is the reading of the Gruelle books to the preceding period. That is, important to the development of the most desirable traits which will appear at maturity. The Raggedy Ann and Andy books by Gruelle formulate a youthful conception of morality far more powerful than any other works produced for the child. Ten to one the next adult whom you find to be intolerably dull did not find himself upon the sands of Barsoom during his teens -- that period of maturing reason still unclogged with the disillusionments which inhibit free reign of imagination.

A Barsoomian globe, it seemed to me, would be an interesting bridge back to the delightful emotions permeating that era of life. It seemed, at first, an easy enough thing to do. I could simply make a list of the cities mentioned, scatter them at intervals around the globe, guided by whatever references, if any, might be found as to approximate locations, and call the globe Barsoom.

I was wrong.

Although both strictly and identifiably Burroughs, the moods of Tarzan and Barsoom are not identical. Tarzan, in spite of high fictionalization, is reality, in all its cruelty, irony, and bitter limitation. Barsoom, although my powers of rationalization fought it as far as possible, is far into the realm of fantasy. Notably so in THUVIA and LLANA.

Many years had passed since my initial reading of Burroughs. By attempting to reread other childhood favorites -- "Bomba", for one -- I was met with nothing but disappointment. The writings of Burroughs have been held, as "common knowledge", to be illiterate, completely lacking in correct grammar, and devoid of all style. Month after month I continued to savor my original image of Burroughs, afraid to face disillusionment.

I still have a collection of my own high school English compositions, and a few of them are graded A+, a rare mark in those classes. I was not a complete failure in English. Perhaps, as evidence (for the sake of a far more capable thinker than myself) that my perception is not generally inferior, I could use some other examples. I generally, myself, discard IQ scores as a valid measure of creative thinking ability (most high scorers I've known have been incapable of valid contribution to anything), but some people are always impressed by this. There were 2000 pupils in my high school, and a teacher once divulged to me that I held the highest score in the school at the time. (Of course it could have been a bad year in general.) But at least my awareness is, theoretically, average or above.

And the extent of my general reading is at least average. By ten, I had consumed most of the works of Conan Doyle and other writers considered food for an older audience, and my general quality of consumption has lessened only slightly. I have sold a dozen short stories to professional markets.

In rereading Burroughs, I renewed my friendship with one of the most literate, grammatically correct, and imaginative writers of my acquaintance. The teenager who has missed Burroughs has missed a great facet of our literary heritage and, in this age, a part of life itself.

As I began renewing my knowledge of Barsoomian history, however, I also discovered to my horror that Burroughs pinpointed locations right and left with exact references to longitude and latitude...a point which my memory from adolescence had forgotten. No longer was the Barsoomian globe an overnight fun project. It would entail many days (actually, months) of careful reading and annotation of every book in the series, drawing preliminary graphs, and fitting together a working landscape to encompass literally hundreds of references to scenery, a good number of which, at first sight, seemed in violent contradiction with one another. Was it worth it? The answer would depend, of course, upon the individual faced with that question. I proceeded.

Probably the greatest artistic liberty seemed to be the size of the moons. The science of the day had failed Burroughs in time to give that first, tradition-setting story an accurate description of their size, and this, artistically, was to his advantage.

The two giant discs hovering above Barsoom, casting their parti-colored conflicting shadows, are indeed a picturesque scene of unquestionable mood and beauty. The error was in assuming that since the satellites were far closer to their parent planet than is our own moon to Earth, they would naturally appear larger. Our moon happens to be where it is because it can't get closer without being torn asunder by gravitational pressures. (It is moving closer, gradually, and in a few billion years, will be torn asunder.) The moons of Mars are able to exist as close as they are to their primary because, we now know, the larger one is only about ten miles in diameter; the smaller one, five. How much light would that shine upon Mars?

I myself was observing the first communications satellite one evening when the moon was showing about one fifth of its total size, and suddenly my mind wandered to the descriptions given by Burroughs of the moons of Mars -- of their frantic race above the Barsoomian landscape, their shadows causing the surface to appear as though under water, and the larger moon, when in full phase, causing the night to turn almost to day. If it had been the moon, as I observed it, approximately one fifth full size, moving at the pace of the artificial satellite, and if the satellite had hung virtually motionless -- as a brilliant star -- they would have been, sadly, close visual counterparts of the Martian moons.

Martian goofs, however, could be excused, to a certain extent. It is in errors of Barsoomian geography that Burroughs lays himself most open to criticism. A fictionally-devised world should be no difficulty in keeping in order.

But the southwest corner of Burroughs' territory of Thark, to make all distances work out, falls a full thirty-plus degrees farther north than the point given as Thark's southern boundary. The city of Zodanga seems to be located at two widely separated points. The hemispheres cannot be divided at zero longitude.

Cities are almost all located in relation to other cities. Therefore, each and every apparent discrepancy would throw half the chart out of line. But Burroughs was a master of leaving pivot-points for rationalization. Explanations to everything could somehow be worked out.

+ + + + +

A loud bang against the French doors separating my bedroom from the living room of my apartment brought me abruptly from a sound sleep. There was a voice, calling in inquiry and obvious surprise, in the room. The doors of my apartment had been well locked for the night, yet someone was standing there in the darkness, his frame silhouetted against the faint light coming through the large window of the far room, leaning against the French doors. He spoke again:

"Burroughs?"

I was gazing intently at the silhouette, and finally arose slowly from my bed. I saw now that my visitor was of my own height, and near my own age. "No, I am not Burroughs," I said. And, attempting to put a degree of reassurance into my voice, I continued, "...but...Kaor!"

How I knew he was from Barsoom, I don't know. The improbability of such a thing was overwhelming, and yet, at the time, it seemed to be the most logical of assumptions. "I shall put on the light," I said.

The youth was, to appearances, slightly younger than I, and his smooth skin was of a faint copperish red which if anything produced a strikingly handsome appearance. His garments consisted of what appeared to be a series of jewel-studded belts, clamped one to another to form a harness about the upper part of his body. From this depended what appeared to be a leather pouch, and an intricately styled sword at his left side. On his left wrist was a bracelet inset with a watch-like device, and upon his feet were sandals.

"My name is Larry," I said. Instinctively, I backed slightly away as he reached out his arm towards my shoulder.

"My name..." he began... The contact of his hand was one of icy cold. But the feeling passed in a moment, and I returned the Martian greeting, staring deep into the grey eyes before me. "...my name is John Carter!"

Something was wrong! No, not under any reasoning could this be the John Carter. His coloring was of Mars, not of Earth, and his age... Captain Carter of Virginia, now John Carter of Mars, was, to appearances, a man in his thirties, had always, inexplicably, appeared a man in his thirties. This John Carter was too young.

"A relation of the John Carter from Earth?" I asked.

"Yes," was his reply, and I momentarily stopped breathing while I awaited the explanation that I knew must follow. Was he another son of John Carter, a younger brother to Carthoris? Or was he a great-grandson of Carter's son? Either I knew full well to be possible, knowing the span of life upon Barsoom. "I am John Carter, John Carter's son. Dejah Thoris is my mother, Carthoris my elder brother," he explained. "It was early my father's avowed wish that no other should ever bear the burden of his name, but during one of his many long absences from Helium during which he fought from pole to pole on Mars, Dejah Thoris vowed that should John Carter survive, and should an egg of hers ever again bring forth a man child, he, too, would be John Carter...that, to the extent that Dejah Thoris could impose her will upon impersonal fate, there should always be a John Carter of Mars!"

I asked him the reason for his appearance on Earth, adding the regrettable fact that his father's last friend upon Earth was now gone for many years.

"I think that somehow I knew that," he said, "I know that my father must. It was just the first name I could think of. The only name I could associate with Ja... with Earth. I do not know why I am here. One moment I was in Greater Helium, and then a coldness, and now.... I hope you will not think me a weakling, but I can hardly stand. If I were not half an Earth man by heredity, I think that I would be unable to lift my feet."

As he spoke I became quite conscious of his pronunciation of English words -- beautiful to the extreme -- a distinct accent which complemented the language as no other upon Earth, and, overlaying what I realized could be none other than a Barsoomian accent, was a softness and graciousness of speech which puzzled me only until I remembered that John Carter's father, John Carter, was from Virginia. What I was hearing was the speech, both manly and gentle, of nineteenth century Virginia, removed forty-three million miles and nearly a century in time, and returned now to Earth by this younger John Carter.

But why had this John Carter landed within my very home? What was the bond which had once lifted the original John Carter from a spot on the bank of the Hudson River, such a short distance from my home, and carried him some forty-three million miles to Barsoom, and which now brought his son back over that awesome distance, to alight almost upon the very spot?

He had been thinking of Jasoom. I had been thinking of Mars. As an artist, I had produced many paintings and drawings to illustrate the documents that Burroughs had received from the first John Carter. I was at this moment about to begin work on a map of the world that was the native home of this younger John.

We talked well into the night.

When eventually neither of us could retain his wakefulness, we decided to chance sleep -- both fearful that Barsoom might beckon John once more to his home before we should awaken. But when morning came he was still there, and there he remained for some days.

Fortunate it was that John Carter of Virginia had taught this son to read as well as to speak English. Only the members of his family, and Vad Varo the Barsoomian, late Ulysses S. Paxton, USA, of all the residents of the red planet, could write any earthly language, and many had been the occasion upon which these had used English as a spoken secret language when the guests of an unfriendly jed, or as a written code when transmitting messages by the hand of a messenger of suspicioned reliability.

Now John Carter, son of a Virginian father and a Barsoomian princess, himself of royal blood, by birth a prince of Helium and by gallant deeds already an admired and feared veteran of the almost ceaseless Martian campaigns, for the first time perused the printed accounts of his father's early experiences upon Barsoom, and was able to help me to a slight degree in constructing my Barsoomian chart. His personal ignorance of his native planet's surface was of tremendous annoyance and regret to him, and he joined in most enthusiastically in attempting to piece together Martian geography from quotations in his father's narrations. He promised, if he did return to Barsoom, and was ever again able to communicate with me, that he would make it his business to know by heart every inch of the face of Barsoom. Meanwhile, with even his incomplete first-hand experience, my friend John Carter was able to clarify a number of points undeterminable from the accounts of Burroughs alone.

Unfortunately, the young Carter was a breed apart from his father in many respects. Even the highest ranks of Barsoomian nobility are virtually born with a sword in their hands, and would put Earth's greatest masters of the weapon to shame, while the Martian youths are still in what we would term infancy. But as to navigation and global conflicts, the younger Carter seemed in recent years to have turned his interests elsewhere. He was of what he termed the New Breed who would eventually, he hoped, turn Barsoom into a united world interested in the advancement rather than the extermination of its peoples. He himself had turned his interests toward chemical engineering, and talked at great length of many things in his field. Dearest to the heart of the younger Carter was a far-reaching plan to build additional atmosphere and moisture producing plants upon Barsoom, so that with an enriched and moistened coat of air that planet might once more flourish, that food would become plentiful and the long-disappeared commerce of the ancient Martian seas be restored. Carter's closest allies in this gigantic and noble undertaking were Ras Thavas, already famed for both well and ill as the Mastermind of Mars, and another Barsoomian savant of such incredible achievements that he was known as the Magician of Mars: Ul Quorn.

To my queries of his father's further adventures, he was again embarrassedly ignorant, and I had to admit that were he to ask me of my own father's experiences, I would have been equally ignorant. The young Carter knew for almost an hour before his return to Barsoom that his departure was approaching. It was late evening, and he was wearing Earthly clothing of my own, having made a gift to me of his marvelous Martian sword and his harness. Together, knowing somehow without speaking what was to happen, we walked to the entrance of Central Park. The last I saw of Carter was as he walked into the darkness of the park, toward a rise of ground which permitted a clear look at the heavens. The stars were unusually bright, the sky incredibly clear for New York. For the first time I was able clearly to distinguish the red, unwinking eye of Mars. When I turned to John, he was gone.

But during his visit, I had recorded as much of John Carter's information of his home planet as I could, and I will repeat here those portions of my record as seem appropriate to the present publication.

"The Barsoomian grid system," John had explained, "is considerably different from that used upon Earth, and apparently, to avoid confusion, either my father or Mr. Burroughs attempted to translate most of the notes to Earth terms, using the standard grid upon Earthly maps of Mars, the zero line bisecting a relatively insignificant city known as Exum. The manuscript titled "A Fighting Man of Mars" seems to be a product of a few too many well-meaning hands in the geographical pie.

"That story, you will remember, was the story of Tan Hadron of Hastor. He had narrated his adventure to Vad Varo, known on Earth as Ulysses Paxton. Vad Varo transmitted the tale via Gridley Wave to Edgar Rice Burroughs, and Burroughs recorded it to be read by people of Earth. It was the first message of any length to be transmitted from Barsoom to Jasoom by Gridley Wave, and specific data may have been misunderstood. Aside from the unreliability of that crude, early model of the Gridley Wave transmitter and receiver (this occurred, you will recall, in the Earthly year 1930), the fact that the story was repeated orally so many times before being reduced to writing must have introduced inaccuracies and contradictions. In any case, its distance translations seem utterly confused.

"The base point of the Martian grid system is actually correlated with the city of Horz. If I recall my history correctly, it was because Horz had once been the ancient center of Barsoomian culture, that it was determined to use it as a base in dividing the planet into hemispheres in such a manner as was obviously the product of mathematical reason and geographical scholarship. In any case, the result was the use of an equilateral triangle. One of its points was the known and established location of Horz. The second was evidence of the long-known realization that Barsoom was almost spherical, and of its revolution and the location of its axis: Polodona, what you here on Earth would call your equator. The third point -- determinable only through knowledge of geometrical and trigonometrical functions -- was the basis for the longitudinal zero.

"Most Barsoomians, as far as I know, actually believe our two moons to be as gigantic as they appear. Most scientists are aware that what we see came into view only after the perfection of our artificial atmosphere, but especially in view of the experiences of my father, Dejah Thoris, Jat Or, Fal Sivas, Gar Nal and Ur Jan, upon Thuria, or Ladan as its residents call it. This world is known to you as Phobos, the larger moon of Mars. Although it is a tiny world by Earthly or Barsoomian standards, its visitors find it a full-sized planet. This is due to the little-known Theory of Planetary Relativity, but to the common folk of Barsoom the strange adventure which took place in 1935 is only more proof that Thuria and Clurou are actually as large as they appear. But it is only an optical illusion, caused by Barsoom's artificial atmosphere."

The atmosphere of Barsoom is synthetic! Who can estimate the full effect of this fact? Aside from being of a composition which would make it virtually undetectable from Earth, it could also contain elements to increase considerably the warmth, to the surface, generated by the sun.

And who can say that one of its properties could not be magnification? That the celestial objects viewed by Barsoomians might not be visually increased to twenty or to fifty times their true size? Would this not also account for the fact that Martians are known to have made close telescopic study of the surface of Earth? Whereas Earth's atmosphere hinders our astronomers, the atmosphere of Mars is the greatest aid of theirs! But, lying so close to the surface, the same atmosphere that helps the Barsoomians to observe other worlds, blurs the face of Barsoom as observed from the Earth.

Reflecting telescopes, through which most observations on Earth are made, give an upside-down image of Mars, so that, for convenience of orientation, most charts and photographs are published with the north pole at the bottom. Our "upside-down" view of Mars, however, is, according to John Carter of Helium, the correct view of Barsoom. We only fool ourselves by attempting to outsmart the laws of optics and reversing our observations! I must confess that I do not fully understand the basis of John's statements in this matter, but he was so firm in this regard that I inverted my preliminary chart to accord with his explanation.

As to the controversial manuscript titled "Giant of Mars", the authorship of which has been in dispute since its publication, John was at a complete loss. "This is simply not a portrayal of my home," he told me, "nor of any part of its history. If, indeed, it was my father's narration, its editor must surely have removed a preface explaining that it was the vivid memory of a very fitful slumber. No such events, I am certain, ever took place upon Barsoom!"

Many persons will remain skeptical, of course, as to the existence even of life upon Barsoom (excuse me...Mars!). The thought of great six-limbed men on thoats, and green six-limbed men at that, of fierce wars with bloodied swords used alongside explosive "radium" bullets, calots...Well, as Burroughs himself liked to say, "I hope no one really takes my writings too seriously."

+ + + + +

THE EXPLORATION OF MARS by Willy Ley and Wernher von Braun, pp 61-82
(slightly condensed):

On July 4, 1937, /there was/ an intensely bright spot which scintillated like a star...but disappeared after about 5 minutes. The place was... near the Martian equator at about 95°. On December 8, 1951, /there was/ a sharp, bright, glaring spot (located elsewhere) brilliant as a sixth-magnitude star.../it/ shone with scintillation for about 5 minutes. Fading rapidly, it looked like a whitish cloudlet. ...Another but not so brilliant flare was seen...on July 1, 1954. ...volcanic activity might account for light and cloud formations, but...the duration of the flare was too short for a volcanic eruption.

++

From NEWSDAY,
a Long Island,
New York,
newspaper for
February 13,
1963:

WITHOUT A DOUBT: GREEN

Plainview - Harland W. Meistrell of Great Neck, who as an expert on dogs know there is no such thing as a green dog, uses magnifying glass to get close look at hair on Pistachio at its owner's Plainview home yesterday. Meistrell's expert conclusion: Pistachio is, in fact, green... "The dog's ancestors might have been eight or 10 different colors and somehow this combination could have produced a puppy whose color was predominantly white, but had a green overlay of hair," Meistrell said... Pistachio was born in a litter of six to /a/ black and tan German shepherd, Duchess. The other pups are varying shades of brown. Their father's color is a mystery, since no one except Duchess knows his identity.

Woola, you old rascal!!!

Venus

Observed

or. A Short Jaunt through the Fogbanks

I CASE FOR THE DEFENSE

I think in the case of the Amtorian stories we have an even better example of how the theory mentioned in THE MARTIAN ODYSSEY OF ERB (that one of the best benchmarks of a writer's creative mastery is the names he makes up) does not hold water very well. This is in spite of the fact that I find only a few excellent Amtorian names -- Duare, Illana, Vodaro, Havatoo, Vejara, Mintep -- too few. They more usually ran to such conglomerations as Ambat, Ata-voo-med-ro, Bo Gasto, Homo, Kabell, Ro-Ton, Thor (come on, ERB), and all those Tag-kum-voo-Klambad monstrosities.

Of course I have a real reason here, that these are not the simple result of poor creativity. For instead of creating names, Burroughs created a language. ERB not being a philologist like Tolkien, his language was rather primitive, though capable of amazing complexities and quite well worked out, and the resultant names were consequently unmellifluous. This primitive quality shows up in the fact that it is simply based on the accretion of monosyllables (and Burroughs' way with monosyllables was oftener than not excessively awkward, like my sentences). Thus the cited Ata-voo-med-ro, "A-one-million-three." Or better, kloobargan -- derived from gan:man, bar:hair, no (contraction of not:with) being a prefix having the value of the suffix -y in English, all of which clots together as nobar:hair, nobargan:hair man, and, with kloob forming the plural, kloobargan:hair men, i.e. savages....perhaps a great way to put a language together, but it makes for lumpy reading.

But it gives Burroughs a satisfactory excuse, or so I believe. He was working within a preset structure, the language of Amtor; given the generally rather uninspired root words, it is surprising that any of his names were any good in this series. But I've said I think there are good names, even superior ones, in spite of that limitation to, usually, two syllables -- and never more than three. This is a pretty deadening kind of limitation. But "Mintep, jong of Vepaja" has a curious and sharply realized alien flavor about it; it is innately right for this strange new kingdom in this strange new world. The place names can be haunting -- I shall always regret that Carson has never told of his journeys to Vodaro and Thora and Ganfal Island.

His names for women tend to be his better efforts (Nalte, Vanaja, Illana) -- and in fact I consider "Duare, janjong of Vepaja" somewhat superior even to "the incomparable Dejah Thoris." Better in a practical sense because it is shorter (one case in which proliferation of syllables is unnecessary is in women's names) and because there is only a single part to the name; i.e., the mind totally shrinks away from calling the Princess of Mars merely Thoris, or even Dejah.... Dejah by itself would not really be that bad, except that now that is too short.

There is, however, a larger question of merit involved in the Venus Series than the quality of his names or the complexities of his language, however. There is the question of just how good the books are, anyway. How do they compare with the rest of Burroughs? Where do they fit in his works? Is it true that they are even more science-fictional than the Barsoomian Chronicles?

As I was flailing around trying to find the words to explain why I found the Venus books so magnificently satisfying in the rereading (not having even glanced at them for some 12 years), I came across the following words in Larry Ivie's article. He says, and I agree with him: "Although both strictly and identifiably Burroughs, the moods of Tarzan and Barsoom are not identical. Tarzan, in spite of high fictionalization, is reality, in all its cruelty, irony, and bitter limitation. Barsoom, although my powers of rationalization fought it as far as possible, is far into the realm of fantasy."

Tarzan is reality; it is the real world he lives and adventures in, the real world both physically and psychologically; it is not merely that Stalin can appear, to begin a story with a bang, but that the characters, such as one of my favorites, Sven Anderssen, cook of the Kincaid, are, though invented, completely real. Mars, on the other hand (as all my recent researches have beaten into my protesting mind also), is completely fantastic; if ERB gets into plot troubles there, he invents some new gimmick of science or geography or conveniently forgets a previous gimmick that might make the present situation sticky (how often does Carter ever read minds?)....in short, Barsoom and appurtenances are definitely "far into the realm of fantasy." Pace Dick Lupoff (whose brief pointed essay almost convinced me of the contrary), it's fantasy. Ok, what it is, is science fantasy. There are some superficially science-fictional gimmicks larded in, but it's straight science fantasy, like a lot of recent topnotch stuff such as JEWELS OF APTOR, LEGEND OF LOST EARTH, WITCH WORLD, and CAPTIVES OF THE FLAME.

But Amtor! If Burroughs had been an unknown writer, these stories could have been published in Astounding (pre-Campbell inventory) and been accepted as straight contemporary action science fiction. The stories are realistically treated, the hero acts like a recognizable human being much of the time, and -- most important -- the adventures are conceivable. Carson never takes over the planet; his enemies are always legitimate enemies, villains one can believe would arise on such a planet. Whereas on Barsoom a good half of the heroes' troubles come from this, that, or the other insane jeddak whose only purpose is to get the hero in trouble for about a third of a book. On Amtor, the adversaries are often ideological movements, and their leaders -- still a favorite sf subject. The Thorists, the Zanis, Mephis, are (admittedly crude) exemplars of Earthian philosophies and potentates that Burroughs is ridiculing.

The gimmicks are played straight. The Living Dead of Kormor are not (as they would be in most any Barsoomian narrative) called back to life by magical means, but by straight scientific means -- the creation of surrogate living blood that imparts life to corpses. (A few more years of DNA research on Earth and who knows?)

The description of Amtorian atomic power fits in all but the detail of the actual mechanism, the present program for obtaining vast amounts of controllable energy by small hydrogen-fusion devices.

The Thorists have what are none other but Sonar devices on their ships -- described in great detail, again in all but the detail of the actual mechanism. This "actual mechanism" disclaimer is not as ingenuous as it may sound. If he'd actually been able to work out the details of Sonar in the late '30s, it might have changed the course of World War II. He didn't, and anyway, since when do we expect sf writers to tell us not only what the devices will do but how (with accuracy to the last decimal)? The plain fact is that his descriptions of atomic power, Sonar, beam-power traffic control in Havatoo, and fluorescent indirect lighting ("The scientists of Havatoo have developed a light that is brilliant and at the same time soft, with which they attain effects impossible of achievement by our relatively crude lighting methods. At no place is the source of the light apparent; it casts soft shadows and gives forth no heat. Ordinarily it resembles sunlight, but they also produce soft, pastel shades of various hues." LV-231), are in the main-stream and best tradition of science-fictional extrapolation, and we can't fault ERB for inaccuracy in the details of implementation.

In fact, then, the Amtor that Carson careens through is a science fiction writer's world. What happens to Carson is pret-ty realistic, generally, in terms of what might happen to a man plumped down into a world teeming with such variety as Amtor. The stories are very close to modern science fiction whenever he gets into background detail, sociology, and science; Carson never saves the planet by a last-gasp dash to the Atmosphere Plant; nor does he get outside his own series and look at it, as Tarzan does when he goes to Hollywood to try to get the part of "Tarzan" in the movies (and is rejected for not being the type!)

And Carson combines the characters of Carter and Tarzan, as Amtor does the flavor of Barsoomian adventures and the tropical jungles of Africa. He can be as dashing in rescuing an endangered princess (de Camp still publishes this kind of novel) as Carter, and as calm and aware of the realities of his occasionally overdone environment and perils as Tarzan -- plus Carson's own never-failing sense of humor, which keeps him amused even in difficulties, and even (or especially) at himself. He is a true realist and spares no one; not his enemies, not his friends, not himself -- not even the reader. We all get it in the neck from him, in a sense; if his humorous insights draw blood, that's life. Life draws blood as quickly as a sword does, and much less cleanly. (At this point I refer you, no doubt infuriatingly, to the unpublished novelette THE WIZARD OF VENUS,* though I hope to ameliorate your fury by quoting the portions of the opening paragraphs which sum up all that I find pleasant in Carson's character.)

Carson says, "I believe that it was Roy Chapman Andrews who said that adventures were the result of incompetence and inefficiency, or words to that effect. If that be so, I must be the prize incompetent of two worlds; for I am always encountering the most amazing adventures..... I am rash. I take chances. I know that is stupid. The thing that reflects most discredit upon my intelligence is the fact that oftentimes I know the thing I am about to do is stupid, and yet I go ahead and do it..... But I have a grand time, and so far I have always beaten Death to the draw." Let us then be grateful for Carson's "stupidity," and have a grand time ignoring Roy Chapman Andrews.

*To be published May 1964 by Canaveral Press, along with SKELETON MEN OF JUPITER and JOHN CARTER AND THE GIANT OF MARS, under the title TALES OF THREE PLANETS. I have read the manuscript and added material from it to the Index.

II THE PROBLEMS

To be perfectly frank, there aren't really that many; the four books have a remarkable consistency, not only in matters of geography (aphroditology? aphrology? the hell with it) but in the more general matter of cultural backgrounds. This is in part due, I am sure, to the fact that he had worked out the course of the four books (and even farther) -- the entire course of the four books -- before he even began the series (or certainly by the time PIRATES was ready for publication).

I consider this proven by the mere fact that the Map in the endpapers of each of the four books is the same in every detail each time, including the words in Amtorian characters in the borders. The greater part of these words (which can be easily transliterated after working out the alphabet from the Map proper) are not to be found in the text of the first book. They appear slowly, surfacing one by one, measuredly, during the course of the series -- and about a fourth of them are never used at all! Characters? monsters? kingdoms? apparently we'll never know.

Furthermore, the only two occasions ERB found it necessary to create added place names that were not already on the Map were perfectly justifiable. One, of course, by its very nature could not have been on the Map -- the batch of place names in ESCAPE when he and Duare are swept across the equator (in a storm caused by the sun breaking through and boiling the ocean!) into the Northern Hemisphere. The other occasion was concerned with the subcontinent of Anlap. None of the many cities and kingdoms located there are present on the Map. But consider how many there were! Anlap is divided in three by two east-west mountain ranges, the kingdom of Korva occupying a part of the southern third, and Voo-ad being in the northern third. And the middle third contains Falsa, Panga, Hangor, Maltor, the City of Hor, Onar.... Well, you can see that it would have been virtually impossible to squeeze all of these into the rather limited space available on the Map. So rather than scant any part of them, he merely left them all off. But there can be no doubt that Anlap was mapped out in his mind, for as I intimated earlier, some elements from the Map Border only reach the text in ESCAPE.

He does forget some details; Carson gets the whole longevity serum business all twisted around in his mind, eventually forgetting that the longevity serum has to be given every two years (the Vepajan serum, that is; one can always assume that he got a jolt of the 200-300 year Havatoo juice, but where does that leave Duare? The Sanjong sentenced her to extermination). Perhaps Burroughs realized this, because he does sort of effectively make you forget the precise details by later bringing in the fact that some countries have it, some don't, some have one kind, others a different; the Thorists don't have it and try to steal it from the Vepajans -- and of course in the Northern Hemisphere they don't have it at all. Incidentally, this to me seems to be a much more convincing and interesting state of affairs than obtains on Barsoom, where everybody gets a thousand years and then that's it (of course, with the downfall of Issus, it may yet turn out that Barsoomians are immortal).

And about the r-rays. From my earliest reading in the Venus stories I have had the distinct impression that the r-rays, harmful only to living flesh, killed merely by touching flesh, much as x-rays or microwaves or supersonics might. The whole tenor of his description implies this, I feel. But in my recent stint of reading and rereading the Works, I discovered that in the latter books, the r-ray pistols actually drill holes in the flesh. A gypāl shot in the pond of Carson's Brokal master stains the water with his blood, and several r-ray victims are described as though they had been shot with an ordinary Earthian firearm. Well,

perhaps my understanding is incorrect; certainly the definition of r-rays, that they affect flesh only, is not contradicted if they disintegrate flesh...

But these questionable points are minor, and the few others like them are minor also. In the matter of geography, however, there are a couple of bigger items.

There is the question of just how Carson knows he's in the Southern Hemisphere. There is the question of how one could possibly turn the endpaper Map into something that can be read in ordinary Earth fashion. And finally, there is the question of Neovar, the Small Circle -- is it the Equator or the Tropic of Capricorn?

First, there is absolutely no way for us to know which hemisphere Carson landed in, despite the fact that he mentions it's the southern every page or two. We've got a map, it's of a hemisphere of Venus, but which one?

Well, Carson doesn't know by observation, as there were no indications from the outside of the cloud envelope of the spin, direction of spin, or axis of spin, of Venus.

He knows because he sees an instrument which he divines is a compass, and, pointing at the magnetic needle, says (I do not quote), "That there needle is pointing north!"

The questions should come thick and fast. 1) which end is pointing north? 2) ok, how does he know it's not pointing south? 3) even if it were an Earth compass, how could he be sure that magnetic south was at the same pole as it is on Earth? It would seem to be a 50-50 chance. (I mean that Venusian north and south would properly be determined only in the relation of the axis of rotation, and the direction of it, to the plane of the solar ecliptic and the correlation thence to Earth north and south.)

But Carson goes into none of this. The needle points north and so he's in the Southern Hemisphere. Well, likely as not he is.

Second, the problem of the Map and of Neovar stems, for those of you who joined us late, from the curious notion the Amtorians have (since they cannot observe the heavens, due to the eternal cloud cover) that their world is saucer-shaped and floats on a lake of fire. Their maps, in attempting to reproduce this already distorted worldview, leave out the Northern Hemisphere entirely, and, in transferring the remaining half a world onto a map, put the hot equatorial regions at the center (representing the center and bottom of the saucer), and the chilly polar region around the outside (representing the rim of the saucer, hence the circular shape of the map). They resolve the discrepancies observable on any sea voyage by several clever mathematical ruses, which, their being even more fallacious, I will not go into here. Things are confused enough as it is.

The question, then, is how this Map can be redrawn so that it would be usable in Earthian terms. I had long thought this problem was insoluble short of analysis by a ten-story-high computer, but it turns out to be rather simple, actually -- conceptually, at least, if not physically.

I had mentioned my despair of solving this problem to Don Wollheim, together with a brief outline of the situation to refresh his memory, and he almost instantly pointed out the similarities in distortion to an ordinary Mercator projection --

i.e., the polar regions are wildly oversized (remember? Greenland looks bigger than Australia?) and the equatorial regions are squashed down way undersized. Well, that's so. The equatorial distortion is a little more extensive on the Map of Amtor, but the polar regions instantly become recognizable and conceivable.

It only remains, then, for someone to drop a line from the center of the Map to the rim, slice, stretch the Map into rectangular shape, and -- there's a Mercator projection of the Southern Hemisphere of Amtor!

Third and finally, Neovar, the Small Circle. The problem here is that Carson is confused, in the 2d and 3d books, as to just what this represents.

In the first book it is, by implication, clearly an Amtorian Tropic of Capricorn, the dot in the center of the Map being the equator. PIRATES clearly states that Strabol, the hot land, lies in the equatorial region (reasonable enough). The equatorial region, to spell it out, is that area which (at least on Earth) extends both north and south of the equator; it is not the equator itself. It is unreasonable, I think, to hold that in the case of Amtor the equatorial region extends only to the north of the equator, as that would leave a much-constricted area of temperate weather there (which does not at all seem to be the case when Carson visits the Northern Hemisphere).

However, in LOST, Skor tells them they are in Strabol (the hot equatorial country) and Carson states, "If what Skor said were true, we had crossed the equator and were now in the northern hemisphere of Venus." But Carson's statement cannot be the logical conclusion from what Skor said; and anyway, we have the even later authority of ESCAPE, in which Carson clearly states that the equator is "less than a dot at the center of the map" (this in itself being a wee bit overstated).

I think that the Map, then, is clearly indicating, from rim to center, first, the South Pole; second, in the Large Circle, the Antarctic Circle; third, in the Small Circle, the Tropic of Capricorn; and finally, in the central dot, the Equator.

.....In a sense, there is one more problem of geography, the layout of such lands in the Northern Hemisphere as Carson is made aware of in his brief visit there. Well, it's rather simple. We know only that, an indeterminate distance roughly northeast of Korva, lies the Lake of Japal, 500 miles long in a north-south direction; at the north end is Japal, at the south Mypos. Near Mypos, to the west, is a tidal inlet some five or ten miles long, connecting the Lake with a large ocean. Some 1250 miles across the ocean lies Torlac. Past Japal to the northeast lies the mountainous country of the Timals, and past that, to the south a little, is the land of the Brokols. Far to the north lies Tonglap.

That's that. There isn't a bit more information about the geography of the Northern Hemisphere.

+++++ +++++ +++++

Topographically and geographically speaking, the problems of explication on Amtor are thus totally unlike those of Barsoom. Barsoom had to be mapped out from scratch. Amtor, on the other hand, is all there except for those half-dozen locations in the Northern Hemisphere and the dozen or so crammed into Anlap.

However, the Venus Series is only four books long, and this led me to produce the following index, which I hope will be useful and enjoyable. It covers not only

place names but all the characters, and all the named flora and fauna. It also includes everything I was able to piece out about the language, which Burroughs had obviously worked out before writing a word of the stories.

I had intended this treatment for the Mars Series also, and took notes to that end; but these notes form a stack over a foot high and would have formed an index probably longer than the entire READER'S GUIDE. Literally a cast of thousands.

I shall close with a quote from PIRATES OF VENUS, pp. 87-88, which deals with the Amtorian language and includes all the technical details afforded us on the matter (with the exception of the actual way in which words are formed, which is simply by accretion, as in German).

"The alphabet consists of twenty-four characters, five of which represent vowel sounds, and these are the only vowel sounds that the Venusan vocal chords seem able to articulate. The characters of the alphabet all have the same value, there being no capital letters. Their system of punctuation differs from ours and is more practical; for example, before you start to read a sentence you know whether it is exclamatory, interrogative, a reply to an interrogation, or a simple statement. Characters having values similar to the comma and semicolon are used much as we use these two; they have no colon; their character that functions as does our period follows each sentence, their question mark and exclamation point preceding the sentences the nature of which they determine.//A peculiarity of their language that renders it easy to master is the absence of irregular verbs; the verb root is never altered for voice, mode, tense, number, or person, distinctions that are achieved by the use of several simple, auxiliary words."

III BIBLIOGRAPHY

(Being a brief bibliography of the Venus Series, including first magazine publication, first edition, and edition used for this article, and a note on the manuscript of WIZARD OF VENUS. The numbers are as used in the Glossary; the abbreviations are from Heins' bibliography.)

1. PIRATES OF VENUS (1932, Argosy) (PV)
Burroughs, Tarzana, 1934, 314
Canaveral, New York, 1962, 314
2. LOST ON VENUS (1933, Argosy) (LV)
Burroughs, Tarzana, 1935, 318
3. CARSON OF VENUS (1938, Argosy) (CV)
Burroughs, Tarzana, 1939, 312
4. ESCAPE ON VENUS (1941-42, Fantastic Adventures) (EV)
Burroughs, Tarzana, 1946, 347
5. THE WIZARD OF VENUS (WV)
in manuscript, 56 + 1

GLOSSARY

(Note: You will notice that this Glossary goes far beyond that provided for Barsoom; and that, consequently, the format is different in several important respects. I have tried to include not only all place names, but also all characters, all named flora and fauna, and all elements of the Amtorian language obtainable from the Texts. I have somewhat extended the device of indicating the first page on which an entry occurs, though not by any means in all cases, by indicating those occasions on which a character, etc., first appears and then the name given on a later page. Material in quotes is almost always in Carson's own words, and its use is generally based on a desire to minimize possible error in my editorial rewording. "NH" indicates the item is in the Northern Hemisphere. The correspondence of words in Amtorian and in English is indicated with a colon, as, "gan:man"; when the English equivalent is two or more words, they are hyphenated to avoid misunderstanding, as, "albargan:hairless-man." I have not italicized Amtorian words, since Burroughs was highly inconsistent in this, sometimes varying this on successive pages. Similarly with titles; "jong" is seldom capitalized, although the later books tend more to capitalize noble titles. I have tried to make each entry reasonably self-sufficient; this has caused some repetitiveness, for which I beg your indulgence. Finally, there are 54 words in the border design for the endpaper Map; 16 of these occur nowhere else in the series, and are indicated simply by "MB." Place names on the map are indicated by "M"; many of these are not mentioned in the text until later books, some not at all.)

ad: 4(192) Amtorian for "city," as in Voo-ad:First-City.

Agon: 2(217) by title, Ambad Agon, a psychologist of Havatoo, dinner guest of Ero Shan.

al: 2(72) Amtorian, analyzed to be a prefix signifying "without" or "no," as in albargan:hairless-man.

alalus: 4(152) not Amtorian, in spite of appearance; coined by Haeckel to denote his "hypothetical lower order of man lacking the faculty of speech, posited by Haeckel as Homo primigenius alalus." (Webster's First International); Carson suspects the Brokols are alalus.

albargan: 2(72) Amtorian, "literally, no-hair-man, or without-hair-man, otherwise, hairless man..."; bar:hair and gan:man, consequently al:without/no.

Alzo: 1(80) woman of Duran's household, mate of Olthar.

ambad:

- a. 2(198) Amtorian for "psychologist," pl. klambad.
- b. Ambad, the psychologists' section of Havatoo.

Ambad Lat: 2(200) Psychologist Avenue, in Havatoo; leads from Tak Kum Voo Klambad, Gate of the Psychologists, to the civic center, the hub of the city.

Ambat: 4(271) by title, Korgan Kantum Ambat, a soldier-physicist of Havatoo who was, many years ago, swept over the falls of the River of Death below the city and was picked up, floating on a log, by Thorists; the Thorists' ship was later wrecked on the Falsa coast, and Ambat is now a valued and respected resident of Onar.

amjak: MB

Amlot: 3(70),5; capital of Korva; Kord, jong, deposed and later slain by Mephis, jong, who was poisoned by the Toganja Zerka and succeeded by Taman, jong; the city is by the ocean, with a beautiful harbor.

Amtor: M,1(86) "more than twenty-six million miles" from Earth; pp. 89-95 of PV provide an excellent preliminary course on Amtorian history and science.

an: 1(166),2(17),3,4; Amtorian for "bird," as, angan:bird-man.

Andoo: M,2(171) mountainous land upriver from Havatoo and Kormor; Baltoo, jong; according to Nalte, is 1000 kobs from Morov, which Carson translates as 2500 miles; but Carson admits Nalte must have exaggerated vastly.

angan: 1(166,167) pl. klangan, winged men of limited intellect, though possessed of the common Amtorian language and quite garrolous; loyal to whomever owns them; long, detailed description pp. 169-170-PV; an:bird, gan:man.

Anlap: M,3(65),4; literally, "Bird Land"; subcontinent "northwest of Vepaja ...lies partially in Trabol and partially in Strabol. The maps show it as an island, a very large island; but of course nobody knows..." (Duare's words in PV); maps indicate some 500 miles between Anlap and Vepaja, but in EV they learn, in their first flight to Anlap, that it is over 1500 miles; EV also states: "Anlap is roughly divided into three parts by ((two mountain ranges)) ...Both of these mighty ranges run in an east-west direction and between them is an enormous, well-watered plateau, comprising vast plains of almost level land."; in the northern third lies Voo-ad, in the central third Falsa and Panga.

Anoos: 1(195,196) a Thorist, the traitor among the Soldiers of Liberty; choked to death, p.201, presumably by Zog.

anotar: 3(17),4; Duare's neologism in Amtorian for aeroplane, from an:bird and notar:ship; Carson's plane is not The Anotar, it is an anotar and has no personal name of its own; made in Havatoo with super-strong, super-lightweight material to Carson's design, and powered by the Amtorian version of atomic energy, it could fly for 50 years before wearing out; noiseless engine; a composite of Earth airships, it seats four, two abreast in an open front cockpit and two in a streamlined cabin aft, controls at each seat; amphibious; Carson's eventually destroyed by the Hangors (EV-322) after having its nose t-rayed by the Falsan fleet; later Ero Shan builds another in Havatoo, and in WV Ero Shan and Carson help Taman build a fleet for Korva.

Artol: 4(62); NH; warrior in body-guard of Jantor, Jong of Japal; later fellow-slave of Kandar and Carson, and still later warrior in body-guard of Kandar, Jong of Jantor.

ata: 4(192) Amtorian sound for the character representing the "a" sound in Amtorian.

Ata-voo-med-ro: 4(192) a Vooyorgan of Voo-ad, who welcomes Carson and Duare to Voo-ad; name is literally "A-One million three."

ath: 4(286) Amtorian for "look."

athgan:

a. 4(286) literally, "look-man," meaning scout; ath:look, gan:man.

(athgan)

- b. 4(286) A.-975, scout ship of Falsan navy that Carson is placed on and later commands; at the end of EV is used to transport Carson, Duare, and Ero Shan over the southern range of Anlap; previous commander, the rokor Ganjo; built to hold the rokor, a pilot, 4 gunners, and two torpedomen.

Ator: M,MB,3(110) Atorians are the Jews of Amtor; the Zanis exterminate them in much the same fashion; instead of large noses it is large ears that Burroughs makes the identifying stigma; nothing more is known about the land or people.

Avenue of the Gates: 2(23) in Havatoo; forms a great arc nearly eight miles long just inside the outer wall of the land side of Havatoo; lined by shops and factories; wide enough for Carson to use it for the anotar's takeoff.

ax: 3(72) Amtorian unit of time, 20 Amtorian days or slightly over 22 days 11 hours, Earth time.

Baltoo: 2(159) jong of Andoo; father of Nalte and six other daughters; it is not known how many sons, if any, he has.

Banat: 4(296,299) a yorkokor (colonel) of the Falsan navy; his son is a zaldar-herder near the southern mountain range; captured by the Hangors, becomes friend of Carson.

bar: 1(302) Amtorian for "hair."

basto: 1(157),4; large omnivore of Amtor; hunted for hide and flesh ("There is nothing like a basto steak grilled over a wood fire."); horned, fanged, and very bellicose (an important factor, as they reach a weight of 1200 lbs.); long, detailed description, PV-157 & 161.

Bo Gasto: 2(217) by title, Kalto Bo Gasto, a chemist of Havatoo; dinner guest of Ero Shan.

bol: M,1(89) by analysis, Amtorian for "country, land"; Karbol: Cold-Country, and Strabol is described as the hot country though not specifically named such.

Borsan: 3(191) flat-topped mountain southwest of Amlot, near the farm of Lodas.

Brokol:

- a. 4(152) NH; "the greatest empire in Amtor" (according to one Brokol); it lies about a hundred miles from Japal, on the other side of a mountain range; Duma, jong; Loto-El-Ho-Ganja, resident goddess.
- b. NH; capital of land of Brokol; population approx. 50,000; has principal temple of Loto-El-Ho-Ganja.
- c. 4(149,152) NH; the people; their young are seeds and are planted; the Brokols grow on the trees like fruit; they are sickly greenish in hue and entirely hairless, with a little knob of flesh on the top of their heads where they were attached to their tree; they fight with swords and long-handled hooks with which they catch and drag enemies within sword-range; their blood is white, not red; they eat no meat, though they drink the blood of warm blooded animals.

Bund: 3(27) a woman of Houtomai; mate of Lula.

Burroughs, Edgar Rice: 1(9),2,3,4,5; a writer; contacted by Carson Napier and utilized by him to receive his messages from Mars.

Byea: 1(280) a Vepajan woman, prisoner of the Thorists; freed during the revolt on the Sofal.

California: 4(308) a little country that's not at war with anybody, and certainly not with Hangor; by his own testimony, well-known -- in fact, visited by -- Jeft, the jong of the Hangors.

Callwell, Betty: 4(184) a Brooklyn girl who disappeared some 25 years prior to the publication of EV, and whose body was discovered, shortly prior to publication of EV, perfectly preserved and not a day older than when she vanished; possibly Loto-El-Ho-Ganja; Burroughs' most effective mystery.

Car: 1(29) Jimmy Welsh's nickname for Carson Napier.

Carson, John: 1(20) great-grandfather on his mother's side of Carson Napier (Carson of Venus); passed "a considerable fortune" on to his great-grandson, through his mother; thus is responsible for Carson's being able to build his rocket ship.

Carson, (Judge) John: 1(19) Carson Napier's maternal grandfather; a Virginian (!); died when Carson was about 14.

Carson kum Amtor: 4(165) Carson Napier's name as given to the Brokols, this being the literal translation of "Carson of Venus."

Carson of Napier: 1(176) Carson Napier's name in "the Amtorian form," given to the Thorists on the Sofal.

Carson of Venus: 3(82) Carson Napier's name as given to the Korvans, using the actual word "Venus" rather than "Amtor"; this of course is meaningless to an Amtorian, and Carson apparently later relents and lets his name be given in Amtorian.

Central Laboratories: 2(205) in Havatoo; administrative center of the Sanjong (ruling quintumvirate); in Amtorian, Sera Tartum (spelled "tartoom" in the Map border).

Chand Kabi: 1(17),2,3,4,5; old Hindu mystic who taught Carson Napier how to project his astral body (and to be able to receive as well as give information when so projected, as witness the conversation with Burroughs and Rothmund, PV-17-21; his death is not mentioned anywhere, so possibly he is still alive and communications with Carson can be resumed; in WV-41, Carson says, "... Chand Kabi did not teach me how to harm people physically with these occult powers. He, himself, knew how: he could have caused people at the farthest ends of the Earth to die had he chosen to do so, but he never did. Dear old Chand Kabi never harmed anyone."; and in WV-46, Carson says, "...Chand Kabi used to say to me, 'You must know, my son, for knowledge is power.'"

Cloud People, the: 4(335) inhabitants of the southern mountain range of Anlap; "...their skin is extremely thin and without pores...it is believed that they must perspire through their noses and mouths..."; if exposed to the dryer air of the lowlands, their skin shrivels up as if burned.

Codoveg, Cole: 4(48) King of Briton, 3d century AD; an ancestor of Carson Napier; possibly the Old King Cole of the rhyme.

Danar: 2(217) by title, Yorgan Danar, a commoner of Havatoo; dinner guest of Ero Shan.

Danlot: 4(269) a lotokor (general), commander of the fleet of Falsa against the Pangans.

Danus: 1(86) a 500-year-old Vepajan of Kooaad, curator of the library and "chief physician and surgeon of his country, physician and surgeon to the king, and head of a college of medicine and surgery"; in charge of Carson during his stay in Kooaad.

Dan-voo-med: 4(201) literally, D-1,000,000; a Vooyorgan who divides while visiting the Museum of Natural History in Voo-ad.

Djup: 4(247,248) one of a tribe of savage cannibals in the northern third of Anlap; slain when Duare throws him off the anotar by doing a loop.

Donuk: M,5(10,14) large island due west of Anlap; 9000-foot-high mountains on its eastern side, and past that, the hilly country of Gavo; "...as near as I could recall ((Donuk)) was at least ten thousand miles from Sanara and almost due west of Anlap. According to the maps, there was a considerable body of water separating the two land masses: one of the numerous great oceans of Venus..."

Doran: 4(120) NH; son of Jantor, Jong of Japal, and younger brother of Kandar, tanjong (later jong).

du: 4(195) an Amtorian prefix letter indicating the class of Vooyorgans between artisans and nobles in the city of Voo-ad; "includes what one might term the white collar class and the soldiers."; it is an open question what the relationship of "du" and "dan" are to the character representing the "d" sound in Amtorian.

Dua:

- a. 4(163) NH; vadjong of Brokol, mate of Duma, the jong.
- b. 4(163) NH; invariable name of all vadjongs of Brokol.

Duare: 1(98),2,3,4,5; janjong of Vepaja, daughter and only child of Mintep, Jong of Vepaja; not yet 19, and a virgin, at the opening of PV; pronounced Doo-ah-ree.

Duma:

- a. 4(154) NH; jong of Brokol, and later, by his fiat, its god.
- b. 4(154) NH; invariable name of all jongs of Brokol.

Duran: 1(70,81) first man to speak to Carson on Venus; a noble of Vepaja in Kooaad; of the house of Zar; mate, Zuro; sons, Olthar and Kamlot.

el: 4(154) Amtorian for "more"; as in Loto-El-Ho-Ganja, literally "most high more than woman"; note that Carson invariably translates Amtorian words in word-for-word order.

ellat: 4(63,64) Amtorian word for "might" (strength).

Ellie: 3(47) one of the feminine-role men of Houtomai; shares cave with Lula and Vyla.

Endar: 5(14) son of Tovar and Noola; his woman, Yonda; Klootogan (Second Togan) of the house of Pandar in Gavo.

Ero Shan: 2(195,196),4,5; by title, Korgan Sentar Ero Shan, indicating that he is a biologist as well as a warrior, and also that he is therefore an officer; without family; eventually wins Nalte as mate; in EV, builds an anotar and is forced to land in Voo-ad, where he is hung up on a wall; in WV, goes to Donuk with Carson in a third anotar.

Fadan: 5(30) an officer of Morgas' (the Wizard of Venus) guard.

fal: 1(246) Amtorian verb meaning "kill."

Falsa: 4(270) a land of Anlap, lying in the area between the two mountain ranges; at war with Panga and the smaller horde of Maltor; capital, Onar; the battle flag of Falsa is a red flag, with crossed swords in black; the land lies "some two thousand miles" from the City of Hor in Falsa.

faltar: 3(287) Amtorian word for "pirate ship"; Carson's etymology is ganfal:criminal (gan:man, fal:kill) and notar:ship; however, it is simpler, and, I feel, more poetic just to break it down as fal:kil and notar:ship, to give kill-ship; the word is also applied to the Hangor land scoutships.

faltargan: 3(288) Amtorian for "pirate," from faltar:criminal-ship (or kill-ship) and gan:man, for pirate-ship-man, i.e. pirate.

Folar: 3(289) mate of the Nojo Ganja; r-rayed by Carson (p. 289).

Friend: 2(20) used as a prefix in Kapdor, thus presumably a common Thorist mode of address, as Citizen and Citizenness were mandatory usage during part of the French Revolution, or (Burroughs' probable intent) as Tovarisch (Comrade) is currently used in Communist Russia.

Gamfor: 1(186) a prisoner of the Thorists on the Sofal; "a huge, hulking fellow who had been a farmer in the old days under the jongs...unusually intelligent..."; had been a Thorist but now bitter; one of the Soldiers of Liberty.

gan: 1(302) Amtorian for "man."

ganfal: MB,1(173) Amtorian for criminal, pl. "klooganfal"; gan:man, fal:kill.

Ganfal Island: M; literally, Criminal Island, which conjures up a vision of Burroughs writing one of his best stories concerning it....too bad.

Gangor: 4(64,66) NH; captain of a Japalan merchant ship; later usurped the power and throne of Japal and slew Jantor, the jong; speared to slow death by Kandar (p. 146).

ganja: MB,3(83) Amtorian for "woman."

Ganjo: 4(286) a sub-lieutenant (rokor) of the Falsan navy, commanding the Athgan 975 until slain by enemy action (p.290).

gantor: 3(78),4,5; elephant-like animal of Amtor; larger than the African elephant, similar legs, but "the head was bull-like and armed with a stout horn about a foot long that grew out of the center of the forehead; the mouth was large, and the powerful jaws were armed with very large teeth; the coat, back of the shoulders, was short and a light tawny yellow marked with white splotches like a pinto horse; while covering the shoulders and short neck was a heavy dark mane; the tail was like that of a bull; three enormous horny toes covered the entire bottoms of the feet, forming hoofs (sic)."; howdahs are perched on their backs and used for transportation, practical as well as ceremonial.

gap: 3(118) Amtorian for "prison"; since in Gap kum Rov (Prison of Death) we know kum:of and rov:death.

Gap kum Rov: 3(118) the Prison of Death, in Amlot; situated on a small island about 100 yards from the shore.

Gara Lo: 2(217) a woman of Havatoo; dinner guest of Ero Shan.

Gavo: 5(10,14) a land of Donuk; a hilly country, cut by deep valleys and river gorges, a well-watered country lush with vegetation; four buildings resembling medieval Earth castles are the only constructions in the valley; these are the strongholds of the families of the houses of Ladja, Tolan, and Pandar, and of Morgas, the Wizard of Venus.

gerlat: MB,2(256) Amtorian for "river"; as, Gerlat kum Rov, River of Death, when kum:of and rov:death.

Gerlat kum Rov: 2(173,256) the River of Death; it flows from Andoo to the ocean, past Havatoo and Kormor, at which point it is as broad as the Mississippi, flowing between low white limestone cliffs; below Havatoo it has a waterfall; at its mouth it bears comparison with the Amazon; there is a tunnel underneath it between Havatoo and Kormor; a tributary of the Gerlat kum Rov to the east flows past Skor's castle and the land of Ul.

gerloo: MB,4(63,64) Amtorian for "water."

golf: 2(88) a mental disorder, presumably Earthian rather than Amtorian since Duare was unfamiliar with the word.

Great Circle, the: M,1(89) Ongval; analogous to Earth's Antarctic Circle, though wildly distorted on the Map of Amtor. (see discussion of "Ongvar")

Gridley, Jason: 1(10) appears in person for two pages, mainly to relate information from the Pellucidar and Tarzan series and to give tireless researchers a pleasant feeling that everything is going to fit in just fine.

Guadalupe Island: 1(13),2,3,4; "off the west coast of Lower ((Baja)) California"; it exists, and lies some two hundred miles from the peninsula; spot where Carson's rocket is constructed and launched from.

Guaymas: 1(13) "a seaport in Sonora, on the Gulf of California"; it exists, and seems to be the foremost seaport of Sonora; Carson posts his letter from this town, opening the way for the publication of the series; Guaymas is now a Mercury Capsule tracking station, which I consider pleasantly ironic.

guaypal: 4(62,73) large and ferocious birds of prey; feed on the fish-young of Mypos and the fruit-young of the Brokols.

Hajan: 4(294) jong of Panga.

Hambi Kan: 2(217) a woman of Havatoo; dinner guest of Ero Shan.

Hangor: 4(281) the City of Hangor lies on the coast of Anlap in the area between the two mountain ranges, about 500 miles east of the City of Hor; the Hangors preyed on the Pangan herds during the 10 year war of Panga with Falsa; founded hundreds of years ago by outlaws from Hor and Onar who became roving bandits, it is described as "a mean little walled city, with narrow, crooked, filthy streets, lined with hovels which one could not dignify with the name of houses."

Hara Es: 2(204) a woman of Havatoo, placed in charge of both Nalte and, later, Duare, guarding them during their examination by the Sanjong.

Havatoo: M,MB,2(179,196),3,4,5; the city of the scientists; lies across a broad river from dead Kormor; its seven-gated wall along the river extends for full five miles, qualifying it as one of the largest cities in Burroughs' works; they take such extreme care with their blood lines (all the citizens being magnificent physical and mental specimens) that Duare is unable to gain admittance as a citizen (she is in fact sentenced to death, but this is later rescinded...too late); it is built in a half circle, flat side to the river; its walls are beautifully carved with scenes portraying the history of the city and the race; the wall is easily thirteen miles long and all carved, to the top of its 20 foot height and on both sides; its history given (LV-206 to 215) in great detail, with cultural background and present philosophy; there are no laws in Havatoo since the people are bred to be intelligent enough to know right from wrong; they have an immortality serum which with one shot confers 200 to 300 years of, as it were, immortality, depending on the constitution of the individual -- but when this wears off the citizen is allowed to die, else there would be too many older people, not enough children, and no appreciable improvement of the race; there are no dishonest men in Havatoo, as Mankar (the Bloody, the Saviour) wiped out most of the politicians and succeeding generations have been carefully weeded; probably the closest thing to Burroughs' idea of a utopia, though he does note certain minor flaws.

Havatoo Lat: 2(240) in Havatoo; the Avenue of Havatoo, extending along the city's waterfront.

Herlak: 2(212) a common soldier of Havatoo, of Ero Shan's unit.

hita: 2(171) Amtorian unit of measurement; in PV-92 to 94, Danus explains to Carson that the degree (1/1000 of any circle of longitude) is the basic unit of measurement (he does not call it a hita, which word first occurs in LV-171); thus as a measure of distance it varies wildly depending on which longitude you are at and/or measuring; Klufar's famous solution, reconciliation of the variations by multiplying by the square root of minus one; but in LV-171 & 2 Carson states the kob is 1/10 of a degree of longitude (hita) at the equator, and, to compound this confusion directly states that the equator is The Small Circle (Neovar), though all evidence indicates Neovar is analogous to the Tropic of Capricorn.

ho: 4(154) Amtorian for "than"; as in Loto-El-Ho-Ganja, literally "most high more than woman."

Hokal: 2(20) a Kapdorian officer, leader of the party that captured Carson at end of PV, though not mentioned by name there.

Homo: 3(101) alias of Carson in Kamlot.

Honan: 1(177) a Vepajan, presumably of Kooaad, captive of the Thorists in PV.

Hor: 4(272,287) capital of Panga; an imposing-looking metropolis, large and well-fortified; resisted the attacks of the Falsans for ten years before having its gates smashed in by tanks; called also the City of Hor; Hajan, jong.

Horjan: 3(101) brother of Loda, living in Kamlot; betrayer of Homo.

Houtomai: 3(26) a village of the Samary people, a barbarian race where the men are weaklings and the women are the warriors who run things; presumably to the west of the River of Death, some distance below Havatoo; the Houtomaian are cavedwellers of The Narrow Canyon.

Illana: 3(84) consort of Muso, acting jong of Korvo (in Sanara); a fine woman, later turned out of the palace by Muso, who tries to take Duare as his vadjong (queen).

Innes, David: 1(10) from Pellucidar Series; mentioned in passing in tying up loose ends from TARZAN AT THE EARTH'S CORE.

iorgam: MB. (spelling questionable due to fuzzy reproduction of Map)

ja: 3(83),4; I suspect this to be a feminizing element of the Amtorian language, as in gan:man, ganja:woman.

Jad: 3(48) the female jong, or chief, of Houtomai; the two anomalies are resolved thus: the women's roles being that of warriors and leaders, the head of them uses the male form of the title (rather than vadjong); as for jong here being translated chief, Carson notes this seems merely appropriate for the head of a tribe of such savages.

Jahara: 3(82) janjong of Korva, wife of Taman; daughter of Kord, jong of Korva.

jan: 1(252) Amtorian for "daughter."

janjong: MB,1(252),2,3,4; "compounded of the two words daughter and king.... synonymous to princess"; "the official title of the daughter of a living jong, but it is often used through life as a courtesy title after a jong dies."

Jantor: 4(62) NH; jong of Japal, deposed and later speared to death by the usurper Gangor; father of Kandar and Doran.

Japal: 4(40) NH; Jantor, jong, Gantor usurper and later slayer of Jantor, succeeded by Kandar, jong; lies at the northern end of the 500-mile-long Lake of Japal (at the southern end of which is the city of Mypos).

Jeft: 4(309) jong of Hangor; an extremely gross and brutal-looking man.

jodades: MB,1(177),5; a common Amtorian greeting signifying, roughly, "luck-to-you."

Jonda: 4(159)NH; captain in the army of Tonglap, but a prisoner of the Brokols at his appearance in EV.

jong: 1(96),2,3,4,5; Amtorian for "king"; Carson at first mistakenly considers this to be the name of the man Mintep, Jong (king) of Vepaja (pp. 84-96).

Jong's Guard, the: 3(189) in Amlot, before and after the sway of the Zani Party and the Zani Guard.

joram: M,MB,1(194) one of two Amtorian expressions meaning "ocean," the other being noellat gerloo.

Joran: 2(217) a woman of Havatoo; dinner guest of Ero Shan.

Ka-at: 4(152,156) NH; a Brokol warrior; wears 3 gold armlets and 3 rings on his hook-haft and hence a yorkokor (colonel).

Kabell: 2(217) a woman of Havatoo; dinner guest of Ero Shan.

Kahn, Genghis: 4(78) indicative of Burroughs' belief that the Mongols were really one of the lost tribes of Israel?

Kalto:

- a. 2(207) Amtorian for "chemist."
- b. Name of the chemists' section of Havatoo.

Kamlot: 1(81),2,3; a Vepajan of Kooaad; son of Duran and younger brother of Olthar; weight about 180 lbs (equal to nearly 160 lbs. on Venus); in command of Sofal after Carson's capture by Thorians; in later adventures always referred to by Carson as his best friend in Kooaad.

Kandar: 4(40) NH; tanjong, later jong, of Japal; son of Jonda, jong; prisoner of Myposans at start of book.

kantum:

- a. 2(207) Amtorian for "physicist."
- b. Name of the physicists' section of Havatoo.

Kantum Lat: 2(234) in Havatoo; the Avenue of Physicists.

Kapdor: M,2(14),3,4; a city of Noobol, walled and "lying close to the sea at the mouth of a little valley."; its inhabitants are "dull and apathetic," the result of Thorist rule; formerly part of the old Vepajan empire; mostly single story buildings, some two and three story buildings; most construction is wood but there are streets with box-like stone structures; the Room of the Seven Doors is in Kapdor.

kar: M,1,2,3,4; Amtorian word or prefix signifying "hot"; PV-90 calls Trabol "Cold Country," and we know Strabol is the torrid zone; bol then obviously meaning land or country, tra:cold.

Karbol: M,MB,1(90) literally, "Cold Country"; "as cold as strabol is hot... an inhospitable land...few dare penetrate far for fear of being precipitated over the rim into the molten sea."; actually Karbol is the south polar region of Venus, its outer limit theoretically being, instead of an equator, the south pole itself (a one dimensional concept viewed two dimensionally, you might say).

kazars: MB,2(127,130) the cackling, whistling hunting beasts of Skor; "about the size of a German police dog, but there the similarity ceased. It had a massive, curved beak remarkably similar to that of a parrot; and its body was covered with feathers; but it was no bird, for it went on four legs and had no wings. Forward of its two short ears were three horns, one in front of either ear and the third growing midway between the others....it had no tail. At a distance its legs and feet appeared bird-like...."; they are cannibalistic and will abandon a fight or chase to eat a slain fellow.

Kiron: 1(187) formerly a soldier and a Thorist revolutionary, later a rebel, having been disciplined for insubordination; one of the Soldiers of Liberty.

kl-,kloo-: 1(167),3; the Amtorian pluralizer, kl- before a consonant, kloo- before a vowel; in LV-81 Carson abandons the Amtorian plural form and reverts to the English -s, as an aid to smoother narration.

klangan: 1(166) plural of "angan"; in CV both Carson and Lula (of Houtomai) agree that the klangan are not human, but merely birds that can talk; a nice point for discussion.

kloo: 1(167),2,3,4; in its first appearances defined only as the equivalent of English -s (pluralizer); but later used also as the Amtorian for "two."

klookor: 2(272) literally, "two daggers," which is puzzling, since it seems to put captains under lieutenants, klookor specifically being defined by Carson as a lieutenant and vookor ("one dagger") as captain; rokor ("three daggers") being sub-lieutenant, the pattern is obviously less-daggers-more-rank, analogous to silver-ranking-gold in the American military; however, a colonel is a yorkokor, literally "thousand daggers" (and a general is a lotokor, "most high dagger"); I wonder what the Amtorian is for SNAFU?

kloo-meds: 4(195) literally, the "two millions," the servant class of Voo-ad.

kloonobargan: 1(301),2,3,4; hairy manlike creatures with little intelligence and no imagination, though splendid fighters; they have a vocabulary of perhaps 100 words of the common Amtorian tongue; baboon-faced and cannibalistic, they are advanced enough to be fire-makers; Carson's lengthy explanation of this complex word: "broadly, it means savages; literally, it means hairy men. In the singular, it is nobargan. Gan is man; bar is hair. No is a contraction of not (with), and is used as a prefix with the same value that the suffix y has in English; therefore nobar means hairy, nobargan, hairy man. The prefix kloo forms the plural, and we have kloonobargan (hairy men), savages."

klongyan: 1(256) Amtorian plural of ongyan, "great friend(s) in the sense of eminent or exalted."

Klootogan, klootoganja: 5(14) title of nobility (esp. in Gavo), literally "second high man (woman)"; presumably the rough equivalent of "baronet."

Klufar: 1(95),4; "the great scientist ((who)) expounded the theory of relativity of distance and demonstrated that the real and apparent measurements of distance could be reconciled by multiplying each by the square root of minus one"; lived circa 3000 years (Amtorian? Earthian?) before Carson's advent on Venus; Klufar's Solution is responsible for the present virtually unquestioning Amtorian belief in the accuracy of their ideas about Amtorian geography.

ko: 4(269) Amtorian for "fast"; from kolantar:fast-land-ship, where langar:land-ship.

kob: 2(171) Amtorian unit of distance, a ten-thousandth of a circle, or a tenth of an Amtorian degree (hita, q.v.).

Kod: 4(53) NH; a Myposan, "who buys for Tyros"; purchases Duare for 100 vols or \$59.

Kodj: 1(216) one of the Sofal mutineers; but sent back to Thora on the Sovong.

kolantar: 4(269) literally, "fast land ship"; what Carson terms the cruisers of the Falsan and Pangan navies.

Kooaad: M,1(66,176),2,4; capital of the island kingdom of Vepaja; Carson lands right square above the middle of it at the beginning of PV.

koom: MB.

kor: MB,2(207),4(158) Amtorian for "dagger."

Kord: 3(159) jong of Korva, deposed by the Zani rebellion of Mephis and later slain by r-ray at Mephis's hand; uncle of Muso; ultimately succeeded by Taman, jong.

kordo: MB.

kordogan: 3(111) NCO (at least in the Zani Guard), comparable to "sergeant."

korgan:

a. MB,2(207),5; Amtorian for "soldier," literally "dagger man" since gan: man and kor:dagger; in Havatoo, any soldier who passes the qualifying examination in any of the four scientific classes (physicists, chemists, biologists, psychologists) automatically becomes an officer since only exceptional men can be a soldier and a scientist at the same time (a system which would make for a hell of a lot of enlisted men in the U.S. Army).

b. Korgan, the soldiers' section of Havatoo.

Korgan Lat: 2(220) the Avenue of Warriors in Havatoo.

Kormor: M,MB,2(149) possibly the only city of the kingdom of Morov in the land of Noobol; Skor, jong; the city of the dead across the river from Havatoo; much smaller than Havatoo, running only about a mile along the waterfront, it is a city of virtual hovels, one and two stories tall, Skor's palace itself being only three stories of grey stone; a few live human beings survive in the back ways and dark alleys of the city, on Skor's sufferance.

Korva: 3(69),4,5; (typed "Korvan" in EV-14) kingdom on Anlap; Kord, jong, captured by enemies and succeeded by Muso (Kord's nephew), acting jong in Sanara, who is deposed on news of Kord's death at Mephis's hands, and succeeded by Taman, jong, with Carson Napier appointed tanjong, or crown prince and heir; the other line (in Amlot) is, Kord, jong, deposed by Mephis, would-be jong, and later slain, Mephis then poisoned by the Toganja Zerka and succeeded by Taman, jong; Korva was compelled to give up its entire navy and merchant marine after a recent disastrous defeat in war, but in WV it begins construction of a fleet of anotars; called the Empire of Korva, EV-262.

korvoo: MB.

Kroona: 2(279,284) an old woman of Kormor, one of the few still alive and in hiding; befriends Carson, Duare, and Nalte; in no real danger from Skor due to her age. this appealing old girl loves to lead a life "of constant danger," moving from house to house every night as if her life depended upon it; but LV-298 reveals that Skor was aware of the existence of these old men and women and cared nothing about them one way or the other.

kulop: MB.

kum: 2(159) Amtorian for "of"; several proofs, notably EV-165 where Carson ov Venus gives his name as Carson kum Amtor.

kung: 1(197) "the name of the Amtorian character that represents the k sound in ((English))."

kung, kung, kung: 1(197) initials in Amtorian of "the Soldiers of Liberty"; as "kay, kay, kay" is the way we pronounce the initials of the Ku Klux Klan.

Kurch: 3(265) a Sanaran, described (by a criminal) as an "old villain"; choked to death the same night the Princess Nna was kidnapped; perhaps Prunt and Skrag were his assassins.

Ladja, the house of: 5(19) a noble family of the land of Gavo in Donuk; all presumably turned into zaldars by Morgas, but see WV.

Lake of Japal: 4(28,63) NH; extends some 500 miles north-south in the northern hemisphere of Amtor; Japal at northern end, Mypos at the southern; a tidal channel near the southern end connects this fresh water lake directly with the five-miles-distant ocean or Noellat-gerloo.

lantars: 4(269) literally, "land ships"; the war vessels of the Falsans and the Pangans on Anlap; from lap:land and notoar:ship; they range from as much as 800 feet in length to 116 feet in width, down to tiny scouts.

lap: 4(159)(present in many earlier names) Amtorian for "land(country)"; "Tonglap means big land," and also Anlap:Bird-Land, demonstrate the derivation.

lat: MB,2(200) Amtorian for "avenue"; as, Ambad Lat, Psychologist Avenue.

lebo: MB.

Legan: 3(211) an officer in the Sanaran forces.

The Life of Our Beloved Mephis: 3(17) autobiography of Mephis; exists also in a play version that runs continuously in all 100 theaters of Amlot and which must be seen by each citizen at least once every ten days.

lo: 4(154) Amtorian for "most"; as loto:most-high and to:high(exalted), then lo:most.

Lodas: 3(89) a farmer of Korva; loyal to Kord but used by Muso in his traitorous endeavor to destroy Carson; his farm is 5 klookob NW of Amlot (12½ miles); brother of Horjan.

lor: 1(183),2,3,4,5; "a substance...which contains a considerable proportion of the element yor-san (105)"; exposed to element 93, vik-ro, the lor is totally annihilated, providing power for the Amtorians still unavailable to Earthians but anticipated from the hydrogen-fusion process.

lotar: MB.

loto: 4(154) literally, "most high."

Loto-El-Ho-Ganja: 4(154) NH; resident goddess of Brokol; full title, Loto-El-Ho-Ganja Kum O Raj (i.e., Fire Goddess); in an affair almost entirely shrouded with mystery, is possibly Betty Callwell of Brooklyn, who disappeared some 25 years before the publication of EV and was found dead...25 years later, completely unaged; Burroughs' most chilling moment of sheer horror comes when Loto suddenly breaks into English and then disappears during the night.

lotokor: 4(269) Amtorian for "general or admiral"; presumably derived from loto:most-high, and korgan:soldier.

Lula: 3(24,26) a man of the village of Houtomai of the Samary people; saved from a tharban by Carson; mate of Bund; he and all the other men of Houtomai talk among themselves in what might be called a limp-wristed fashion; but Burroughs' intent is obviously to merely show them playing the woman's role fully; the Houtomaians are all heterosexuals.

Luan: 2(217) a woman of Havatoo; dinner guest of Ero Shan.

Malpi: M.

Maltor: 4(281) a land of Anlap in the area between the two mountain ranges; preyed on Falsa during their 10 years' war with Panga.

"Maltu Mephis!": 3(129) phrase invented by the Toganja Zerka to be used to praise Mephis but actually to make him and the Zanis look ridiculous; obvious imitation of "Heil Hitler," down to the matching initial letters.

Mal Un: 2(248) one of the walking dead of Kormor, who took part in the kidnapping of Nalte from Havatoo; decapitated and cremated by order of the five judges hearing the case.

Mankar (the Bloody, the Saviour): 2(206) a great jong of Havatoo many generations ago; slew all the politicians and appointed various scientists to rule in their stead; permitted only the fit to reproduce and raise children and (apparently) only sterilized the physically, morally, or mentally defectives; no defective infant was allowed to live; before his death, installed the Sanjong to guide the scientific destiny of Havatoo; called M. the Bloody during his life, but M. the Saviour after his death; a not wholly unadmirable chap, take him for all in all.

Mankar Pol: 2(221) in Havatoo; the great and beautiful park surrounding the Central Laboratories; named for the great last jong of Havatoo.

Mantar: 3(129) an officer in the Zani Guards; friend of the Toganja Zerka and an anti-Zani.

Mars: 1(23) fourth planet from the Sun; Carson Napier's target; it must be Barsoom as it is in the same universe of discourse as the Gridley Wave, which is frequently used to contact Earth from Barsoom, in the later Mars books.

med: 4(192) Amtorian for "million."

Mephis: 3(83)4; after a disastrous war in which Korva was completely defeated, Mephis, a common soldier in the Korvan army, led the cult of Zanis to power, usurping all the government, imprisoning Kord, jong, when he would not rule as a figurehead of Mephis, and taking over the rule of all the land except for the seaport of Sanara; slays Kord himself by r-ray pistol; poisoned by the Toganja Zerka; "Our Beloved Mephis"; in physical description and in the details of his rise to power, is exceptionally similar to Adolf Hitler.

Mintep: 1(96),2,3,4; Jong of Vepaja; seven hundred years old; only daughter, Duare, "The Hope of Vepaja," he permits to be sentenced to death by the council of Nobles; Burroughs tries hard to make him sympathetic but he comes out pretty much a rock-headed old fool who puts tradition even above the survival of the nation and his daughter.

mistal: 2(108) "a rat-like animal about the size of a house cat"; often applied as an insult to a person, as if you said "pig!"

Mohar: 2(201) by title, Korgan Kantum Mohar, an officer and physicist of Havatoo. (ERB forgot he'd named the reptilian master-race of Pellucidar "Mohars")

mooja: MB. (Had Burroughs just read OJO IN OZ?)

Moon, the: 1(39) satellite of the Earth, as Carson Napier found out; apparently this is the Moon of THE MOON MAID, as the Gridley Wave again provides a common element.

Moosko:

- a. 1(260;2; an ongyan of Thora; on board the Yan when captured by the Sofal; apparently strangled to death by Carson (LV-48) but death only certified by pirate's remark (CV-294) that Carson is wanted by the Thorists for the death of an ongyan, which can only be Moosko.
- b. Briefly an alias of Carson, in Kapdor.

Mor: 4(342,343) one of the Cloud People; saved by Carson from a tharban, he guides the Athgan 975 through the Mountains of the Clouds to Korva.

Morgas: 5(12) the Wizard of Venus (also the Wizard of Gavo), a powerful vootogan of Gavo; clever, but, according to Carson, a congenital maniac.

Morov: M,MB,2(131) a country, part of Noobol; Skor, jong; founded by Skor "perhaps a hundred years ago"; peopled, sparsely, by dead whom Skor has made ambient.

Morpheus: 1(13) god of sleep in classical mythology; wooed without embarrassment by Edgar Rice Burroughs for an hour after the departure of the Sending from Carson Napier on midnight of the thirteenth.

mortal: MB.

Mountains of the Clouds, the: 4(343) the southern mountain range of Anlap, which divides the part of Anlap that contains Korva from the part that contains Falsa, Panga, Maltor, and Hangor; only one known pass that a wheeled vehicle can maneuver, and then only when guided by one of the Cloud People.



Movis: M.

Museum of Natural History: 4(198) in Voo-ad; many thousands of life forms were kept there, paralyzed and conscious, some living for many hundreds of years, finally destroyed when all the prisoners escaped.

Muso: 3(84) nephew of Kord, jong of Korva; acting jong during Kord's captivity in Amlot; Illana, his consort, later turned out; finally deposed by the council in favor of Taman, jong; slain by Nna, daughter of Taman, with his own r-ray pistol.

Mypos: 4(31) NH; city of the Myposans; Tyros, jong; lies close to the southern end of a fresh-water lake (which has a nearby direct channel to the salt sea, with tides flowing in and out!), the Lake of Japal; the city's architecture is totally haphazard and formless.

Myposans: 4(30) NH; humanoid amphibians with fine physiques; they have gills, partly covered by their black beards; also pop-eyes, protruding lips, and webs between their fingers and toes; utterly emotionless (attributed to the fact that they spawn like fish); neither they nor any other races of the northern hemisphere possess the longevity serum, the r-ray and t-ray weapons, or, indeed, much science at all compared to the southern hemisphere -- but they all possess the common Amtorian language.

Nalte (voo jan kum Baltoo): 2(144,159),4; 19-year-old daughter of Baltoo, jong of Andoo; called Voo Jan (The Daughter) by her people, but Nalte by her friends; captured in a battle and carried off, escaped, captured by tribe of fishermen but escaped down river, finally captured by Skor and taken to his gloomy castle; slender and dark, with black hair, and just a good enough specimen to become a cleaning woman in Havatoo; becomes mate of Ero Shan and later revisits her homeland in the second anotar.

Napier, Carson: 1(9),2,3,4,5; independently wealthy son of an English army officer and a Virginia Carson, both of whom died when he was in his early youth; in EV-48 we learn he traces his ancestry back through Deacon Edmund Rice (!) to Cole Codeveg, King of Briton, 3d cent. A.D.; he gives a lengthy, pre-PV autobiography (PV-17 through 21) which I shall not repeat; he is not without merit, being physically almost perfect, but he is intellectually ill-trained, he has no culture, and possesses inherent psychological faults, the unfortunate victim of inherited repressions, complexes, and fears, above which he has risen to a great extent but which impell the Sanjong of Havatoo to sentence him to destruction in the name of racial purity; besides, he just can't keep out of trouble.

Narrow Canyon, the: 3(26) location of the cave-village of Houtomai; at least five miles from and presumably to the west of The River of Death.

Narvon: 3(170) a great scholar of Korva; caught and tortured to death in the torture room of the Gap kum Rov.

neo: M,1(254,269) Amtorian for "small"; as in Neovar, the Small Circle, and in neolantar, "small land ship."

neolantar: 4(269) literally, "small land ship"; what Carson terms the destroyers of the Falsan and Pangan navies.

neolap: MB; literally, "small land."

Neovar: M; The Small Circle; word is found only on the Map and must be transliterated after working out the alphabet; in PV Danus's explanation of Amtorian geography implies Neovar divides the temperate from the tropic zone of the southern hemisphere of Amtor, and thus is analogous to the Earthian Tropic of Capricorn; but in LV Carson persistently tries to convince us Neovar is the equator, which is impossible, as it would put the torrid zone entirely in the northern hemisphere -- well into the northern hemisphere, since one has to go a considerable distance into Strabol to reach the really hot regions.

neozaldar: 5(11,12) the smaller, piglike species of zaldar, q.v.

Nna: 3(253),4; 9-yr.-old Princess of Korva, daughter of Taman, jong, and Jahara, vadjong; kidnapped by Muso after his deposition; slays Muso with his own r-ray pistol.

no: 1(302) Amtorian contraction of not:with; used in Amtorian as a prefix just as the suffix -y is used in English, as nobar:hairy

nobargan: MB,1(302)2; singular of kloobnorgan, q.v.

Noellat-gerloo: 4(63) NH; literally, "mighty water"; there is some slight confusion in that the term is first used as if it were the specific name of a particular great ocean of the northern hemisphere with Torlac lying on its western side and, near its eastern shore, the Lake of Japal; but the term is later used as though it actually applies to any ocean, which makes it a synonym of joram; from ellat:might(strength), no:y(our suffix), gerloo:water.

Nojo Ganja: 3(286,288) a pirate ship, about the tonnage and appearance of the Sofal (fine but lengthy descr., CV-287).

Noobol: M,1(269),2; "...a sparsely settled land reaching, it is supposed, far into Strabol, the hot country, where no man may live. It is filled with wild beasts and savage tribes. There are scattered settlements along the coast, but most of these have been captured or reduced by the Thorists; the others ((are)) equally dangerous, for they would consider all strangers as enemies." (Duare's words); reached by Carson and the Sofal toward the end of PV.

Noola: 5(14) the woman of Tovar; Vanadja, daughter, and Endar, son; Vootoganja (First Woman) of the house of Pandar; originally of the house of Ladja.

Nor: M,MB.

not: 1(302) Amtorian for "with."

notar: MB,1(254),2,3,4; Amtorian for "ship."

Nurn: 3(293) a crewman of the Nojo Ganja.

o: 4(167) Amtorian for "the," as in Loto-El-Ho-Ganja Kum O Raj, Kum O Raj being translated by Carson as "Of The Fire."

O-220: 1(10) the great dirigible used in TARZAN AT THE EARTH'S CORE to visit Pellucidar; another strand weaving the three series together.

od: 4(202) in Amtorian, "a neuter pronoun analogous to it"; especially used in reference to Vooyorgans.

Olthar: 1(81),3; a son of Duran; older brother of Kamlot

Omar: 4(315,319) a Hangorian slave-driver, nephew of Jeft, the jong; rather a decent sort, probably due to the fact that his mother was a Pangan slave woman.

Onar: 4(271) the capital of Falsa, in the middle region of Anlap.

ong: 1(156),2,3; Amtorian adjective, connoting "great, eminent, or exalted"; as, ongvo:exalted-one, and ongyan:great-friend.

Ongvar: M; The Great Circle; transliterable only by working out the Amtorian alphabet (as with Neovar); the word "Ongvar" is never mentioned in the text, the English only being used; by extension of the discussion on Neovar, we see that the Great Circle must be analogous to the Earthian Antarctic Circle (in terms of habitable lands and probable relative temperatures, the Arctic Circle gives a clearer comparison).

ongvoo: 3(89) Amtorian rank of nobility; "means, literally, exalted one and is hereditary in the collateral branches of the royal family, though occasionally conferred on members of the nobility for highly meritorious service to the jong."

ongyan: 1(256),2; "means great friend, in the sense of eminent or exalted"; "there are a hundred klongyan in the oligarchy ((of Thora))"; they rule Thora more tyrannically than any jong and for themselves alone"; their sole means of identification in lands where they are not personally known is a large ring each wears; the title is an obvious extension of the familiar Thorist term of address to one another, "Friend."

oolja: MB,3(83) Amtorian for "love."

ooljagan: 3(143) Amtorian word meaning "loveman," implying mate but not husband.

ooljaganja: 3(83) Amtorian word meaning "lovewoman"; its specific meaning is specially Amtorian, as there is no marriage on Amtor -- a man and woman simply agree to live together, and this is usually more effective than formal marriage, possibly, as Carson says, "because the tie that bound them was not a fetter"; sounds like a great idea.

Oroso: 2(217) a woman of Havatoo; dinner guest of Ero Shan.

ortij: 3(290) Amtorian singular possessive, "my"; as in ortij-oolja:my-love.

pand: MB.

pandar: 3(267) unit of Korvan money, "has about the purchasing power in Korva that a dollar would have in America"; (c. 1939, of course).

Pandar, the house of: 5(14) a noble family of the land of Gavo in Donuk; their castle is described as follows: "...there were the outer walls with

(Pandar, the house of)

towers at the corners, the ballium, and the central building or donjon. There was no moat, and therefore no drawbridge, but the general effect was quite medieval."

Panga: 4(271) a land of Anlap, lying in the area between the two mountain ranges; at war with Falsa and with the smaller horde of Hangor; Hajan, jong.

Pellucidar: 1(10) definitely tied into same universe, as Jason Gridley, at beginning of PV, mentions message received from Sari concerning von Horst.

Perry, Abner: 1(10) another loose end tied in from the PELLUCIDAR Series.

Plin: 4(86) NH; a Myposan, formerly a noble's warrior, slave in the jong's palace in EV; betrays Carson to regain his former status.

P.M.E.T.: 3(157) the 13th hour, Amtorian time, here and here only is casually referred to as "2:00 P.M.E.T."; God knows what it means.

pol: MB, 2(221) Amtorian for "park"; as, Mankar Pol: Mankar Park.

Prometheus: 2(88) the possibility is adumbrated that he might someday descend to Amtor to give Carson Napier fire; so far, he hasn't.

Prunt: 3(264) a criminal of Sanara, implicated either in the kidnapping of Princess Nna, or merely in choking the old villain, Kurch.

raj: 4(167) Amtorian for "fire"; as in the last word of the name Loto-El-Ho-Ganja Kum O Raj: Most High More Than Woman Of The Fire.

ra jodades: 1(177) response to Amtorian greeting, "jodades" (luck-to-you), logically meaning something like "and luck to you" or "luck to you too."

rentar: MB.

revlaj: MB.

Rice, (Deacon) Edmund: 4(48) ancestor of Carson Napier in his mother's line; in turn, descendant of King Cole Codoveg of 3d Century A.D. Briton.

River of Death: 2(173, 256), 3, 5; Gerlat kum Rov, q.v.

ro: 3(286) Amtorian for three.

rokor: 4(272) literally, "three daggers"; indicates a sublieutenant; see discussion of rank under "klookor."

room of the seven doors, the: 2(11, 15) 3, 4; in the city of Kapdor; the hideous torture room of the Thorists; far be it from me to give away any of its delightful PIT AND THE PENDULUM type secrets inadvertently to any who may not have visited it.

Rothmund, Ralph 1(15) Burroughs' actual secretary and business manager at the time and continuing as such after B's death until 1962; apparently (p. 23) has never believed in Carson Napier's ability to communicate from a distance by telepathy, which seems to cast one serious doubt on the Canonical quality of the Works presently being examined.

rotik: 3(286) common Amtorian sea creature; may attain a length of 1000 feet; "It has a wide mouth and huge, protruding eyes between which a smaller eye is perched upon a cylindrical shaft some fifteen feet above its head. The shaft is erectile; and when the creature is at rest upon the surface or when it is swimming normally beneath, it reclines along its back; but when alarmed or searching for food, the shaft springs erect...also functions as a periscope"; name is literally "three eye."

rov: 2(256) Amtorian for "death"; as in Gerlat kum Rov, the River of Death, and Gap kum Rov, The Prison of Death.

Ro-ton: 4(166) NH; the high priest of Loto-El-Ho-Ganja in Brokol.

Rovlap: M.

r-ray: 1(134),2,3,4,5; produced in Amtorian firearms by the exposure of two radioactive elements to each other; destructive to animal tissue; the active element is found only in Thora; fires, with a hissing sound, as long as the trigger is depressed.

san: 1(183) Amtorian for "five"; as in element 105, yor-san, and Sanjong: five-king.

Samary: 3(27) tribe of primitives in which the male-female roles are reversed; one village of the Samaryans is Houtomai in the Narrow Valley.

Sanara: 3(65,66),4; a seaport of the kingdom of Korva on Anlap; at the beginning of CV, the only city of Korva still fighting against the Zanis; lies a few miles upstream from the coast on a river which runs due east; in WV it is mistakenly called the capital of Korva, though Amot (the true capital) is also mentioned in passing; in WV, Carson plans to fly the third anotar the length of Anlap on a test-and-mapping mission, and says, "Sanara is at the extreme eastern end of Anlap, which, according to Amtorian maps, extends in a westerly direction for about three thousand miles....erroneous conception....I was sure that the distance was nearer six thousand miles than three thousand."

Sanjong: 2(207),4,5; literally, "five-king"; the ruling quintumvirate of Havatoo, composed of a biologist, a psychologist, a chemist, a physicist, and a soldier; it does not rule, but only guides and judges; examinations are given every two years in the five fields, and the best in each field becomes a member of the Sanjong; in LV they condemn Duare to destruction, fearing the taint of Kormor, but in EV we learn they reversed themselves on reconsideration.

Sari: 1(11) a land of Pellucidar; at the beginning of PV a message reaches Burroughs that Sari has received a rumor indicating von Horst has been found.

sentar:

a. 2(207),5; Amtorian for "biologist."

b. Sentar, name of the biologists' section of Havatoo.

Sera Tartum: MB,2(220) the Central Laboratories of Havatoo; on the Map Border, spelled "sera tartoom."

Shogan: 2(221) by title, Kantum Shogan, the physicist heading the Sanjong of Havatoo.

Skabra: 4(54) NH; Vadjong of Mypos; jealous and vicious wife of Tyros; rules as regent after his death until her son's maturity; actually becomes rather pleasant once she is regent.

Skor: 2(130,131) jong of Morov; a scientist, anti-Thorist in belief, from somewhere in the Northern Hemisphere of Amtor, forced to flee for his life because of his experiments with making the dead "live" again; founded the kingdom of Morov perhaps a hundred years ago; can reproduce body cells, which instills synthetic life in the dead, who are thence controlled by Skor's telepathic control (though they carry on a certain amount of independent physical and mental activity on their own); "he made himself a jong and created his own subjects."

Skrag: 3(264) a criminal of Sanara, implicated either in the kidnapping of Princess Nna, or merely in choking the old villain, Kurch.

Small Circle: M,1,2,3,4; Neovar, q.v.

so: 1(246) Amtorian prefix, equivalent to English suffix -er, as, sofal:killer.

sofal:

- a. 1(166),2,3; Amtorian for "killer," from fal:kill and so:-er.
- b. 1(166),2,3; Thorist ship captured by the Soldiers of Liberty, Carson captain, and used "to prey on Thorist shipping and to explore the unknown portions of Amtor."
- c. 3(288) alias of Carson aboard the Nojo Ganja.

Soldiers of Liberty: 1(195) the mutineers on the Sofal; Gamfor, Kiron, Zog, and Honan the principal lieutenants of Carson, the captain (vookor); once successful, they turn it into a pirate ship (which may yet be in business).

Sombaj: M,MB.

Sonora: 1(14) a state of Mexico (for real).

Sov: 2(20) a large, gross-appearing Kapdorian officer.

Sovong: 1(218),2,3; ship accompanying the Sofal, later taken by the Sofal's mutineers and used to ship malcontents back to Thora; name from vong:defend and so:-er, giving sovong:defender.

Spehon: 3(90) according to Muso, posing as a Zani, high in the councils of Mephis; but it is no pose; actually the head of the Zani Guard, making him analogous to Himmler; proclaims himself ruler of Korva at the death of Mephis.

Stalar: 4(312) a Hangorian in charge of slaves.

stra: M,1(89) Amtorian word or prefix for "hot"; analyzing "bol" from Trabol and Strabol as land or country, then Strabol:hot-country and stra:hot.

Strabol: M,MB,1(89,90),2,3,4; "lies in the center of Amtor," according to the Amtorians; however, it is the equatorial region of Venus, "covered with enormous forests and dense undergrowth...peopled by huge land animals, reptiles, and birds, its warm seas swarm with monsters of the deep"; Amtorians therefore don't get very far into Strabol and never find out there's a northern hemisphere; in spite of the forbidding description of Strabol, its outer limits are rather well populated, i.e., Havatoo, Andoo, Kormor, Morov, Noobol, and Kapdor all being almost entirely within this region, as well as considerable parts of Anlap, Donuk, Malpi, and Thora.

strel: MB.

tag: 2(198) Amtorian for "gate"; as in Tag Kum Voo Klambad, Gate of the Psychologists.

Tag Kum Voo Klambad: 2(198) The Gate of the Psychologists, in the SW portion of the wall around Havatoo.

Tag kum voo Klookantum: 2(234) the Gate of the Physicists, at the end of Kantum Lat in Havatoo.

Taman: 2(68,71),4,5; a nobleman of Sanara, later jong of Korva; his mate is the daughter of Kord, jong of Korva, Jahara, janjong of Korva; was next in line to the throne after Muso, nephew of Kord.

tan: MB,3(81) Amtorian for "son"; as in tanjong:son-(of)-jong.

tanjong: 3(81),4,5; Amtorian for "prince," usually the son of a jong (since that is its literal meaning); exceptions are permissable, since Carson is appointed tanjong and heir of Taman, jong of Korva.

Tarel: 1(121,131),3,5; "the strong, silky fiber from which ((the Vepajans')) cloth and cordage are made"; is made from the strands of the web of the targo; in WV Carson uses it to make a parachute.

targo: 1(140,143),5; huge spiderlike inhabitant of the forests of Vepaja; spins huge webs from which tarel is made; is covered with long black hair and has a yellow spot the size of a saucer above each eye; its bite causes paralysis, but even without treatment the effects of its bite wears off a grown man in about 24 hours; though spider-like, the targo has 8 legs.

Tarzan: 1(10) John Clayton, Lord Greystoke, mighty hunter, mighty fighter; mentioned in relation to tying up loose ends from TARZAN AT THE EARTH'S CORE; puts the Tarzan universe pretty squarely in the Amtor universe.

Tarzana: 1(27) opening scene of PV set here, in the very real Tarzana, Calif.

te: 1(205) 1/20th of the Amtorian day of 25 hours, 56 minutes, 4 seconds Earth time; i.e., 80.895 Earth minutes; Burroughs states he "shall translate ((the te)) into its nearest earthly equivalent, hour...."

ted: 4(138) Amtorian unit of measurement; equal to 13.2 Earth feet.

tharban: 2(27),3,4; "a huge and terrible beast. It is covered with stiff hair, like bristles, and is of a reddish color with white stripes running lengthwise of its body, its belly being of a bluish tinge. It has great jaws and terrible talons, and it eats naught but flesh..."; Carson occasionally calls them merely "lions."

Thor: 1(106) a Vepajan laborer who founded the Thorists and preached "a gospel of class hatred called Thorism"; the Thorists eventually overthrew the old empire of Vepaja and took power over all its lands save the present island of Vepaja, apparently unknown to them at that time; now rule Thora, and have apparently lost a great deal of the former territories of Vepaja; the philosophy has spread far and wide, but the rule seems to be somewhat scattered, and Carson in his travels does not seem to encounter pure Thorism very often, though he travels through much of the southern hemisphere of Venus; Thor's own fate is not known (i.e., is he still running things or is he dead, or what?)

Thora: M,1(173) the land of the Thorists, though they also hold much of Noobol and an unknown amount of territory in other lands on the Map but never mentioned in the Texts; "The Free Land of Thora," in the Thorist manner; the element that charges Amtorian r-ray firearms is only to be found in "the heart of the Thorist country."

Thorians, Thorists: 1,2,3,4; variant names of the followers of Thor and Thorism.

tik: 3(286) Amtorian for "eye"; rotik:three-eye, ro:three, so tik:eye.

Timal: 4(119) NH; village and mountain-country of the Timals, savage aborigines; Yat, chief; lies far back in the mountains from Japal.

Timals, the: 4(120) NH; savage aborigines of the mountains back of Japal; they have short tails and horns; Yat, chief; their faces are hideously tattooed in many colors; they are, however, kind and intelligent.

to: 3(135) Amtorian prefix meaning "high," or "over."

tob: 1(157) Amtorian unit of weight; "...the equivalent of one third of an English pound; all weights are computed in tobs or decimals thereof, as they use the decimal system exclusively in their tables of weights and measures."

Tofar: 1(82),3; a Vepajan about whom we learn nothing until CV-302, which says, "Tofar, who had been captain of the palace guard and high in the confidence of Mintep."

togan: 5(14) "something of a title of nobility, possibly analogous to baron"; literally, "high man"; to:high, gan:man; esp. in Gavo.

Toganja: 3(111) seems to connote somewhat more exalted a station than "togan," above, as it is invariably capitalized and the Toganja Zerka is treated with more respect than anyone else in Amot except for Mephis; so a toganja must rank at least as "baronness" in the nobility.

tokordogan: 3(134) in the Zani Guard, translatable as "over-sergeant" (sergeant-major?); to:high(over), kordogan:sergeant.

Tolan, the house of: 5(19) a noble family of the land of Gavo in Donuk; presumably all turned into zaldars by Morgas.

tong: 4(159) Amtorian for "big"; see tonglantar:big-land-ship, where lantar:land-ship; this provides us with the meaning of tongzan, since zan:beast.

tonglantar: 4(269) literally, "big-land-ship"; Carson terms them, variously, dreadnaughts and superdreadnaughts; they are the largest of the Falsan and Pangan fleets, reaching 750 to 800 feet in length and as much as 116 feet in the beam, the upper deck some thirty feet above the ground and the superstructure 30 feet above that; they mount r-rays, t-rays, and guns that fire chemical shells that dissolve the paint that inhibits t-rays; they also have guns that send 1000 lb. explosive shells to a maximum range of about 15 miles; there are also smaller-bore guns sending 500 lb. shells 20-25 miles.

Tonglap: 4(159) NH; lies far to the north of Brokol; its name means "big land."

tongzan: 4(243,244) literally "big beast," from tong:big and zan:beast; "a creature as large and as terrible as the tharban. Its body closely resembled that of the Bengal tiger; in the center of its forehead was a single eye on a

(tongzan)

short antenna; from the shoulders, just anterior to the forelegs, grew two enormous chelae; and its jaws were as terribly armed as those of the tharban ...they haunt the forests of Vepaja ((and of Anlap)) from the ground to the highest branches...they prey upon all forms of life."

tork: 1(135) "the favorite Vepajan game...which is played with pieces that are much like those used in mah jong and bears a startling resemblance to poker."

Torko: 3(150) governor of the Gap kum Rov, the Prison of Death.

Torlac: 4(63) NH; land and/or city which lies 500 kobs (1250 mi.) west of the Lake of Japal on the shores of the Noellat-gerloo; trades with Japal and others.

Tovar: 5(14) a togan of the house of Pandar, his woman, Noola; his son, Endar; his daughter, Vanadja; his title as head of the house of Pandar was Vootogan.

tra: 1(89) Amtorian for "warm"; from Trabol:"means warm country" when bol: country.

Trabol: M,MB,1(89),2,3,4; warm country"; "It entirely surrounds Strabol"; actually is one of Venus's two temperate zones, the other being inaccessible beyond the equatorial region; the Map has reverse distortion, i.e., the larger and smaller longitude-circles bounding it are drawn the reverse of their actual size and location.

Trambol: M,MB.

t-rays: 1(181),2,3,4; formed by exposing element 93 to element 97; destroys everything, eventually even the barrel of the gun it is fired through; as opposed to the r-ray, destructive only of animal tissue.

Tyros: 4(31) NH; jong of the city of Mypos; slain by Carson (p.102) by r-ray pistol; called Tyros the Bloody; described as the only fat Myposan Carson ever saw.

Ul:

- a. 2(166) the land of Ul; below the castle of Skor on the east bank of the tributary leading into the River of Death.
- b. 2(166) leader of the pygmies of the land of Ul; manlike, about three feet tall, covered with hair; capable of some speech; no clothing, ornaments, or weapons, except for fangs and muscle.

Ulan: 3(211) an officer of Samara, of the Jong's Guard at the accession of Taman, jong.

Ulirus: 4(31) NH; a Myposan warrior.

vadja: 2(124) Amtorian for "woman."

vadjong: 2(124) Amtorian for "queen," derived from vadja:female, and jong:king.

Valley People: 4(124,125) NH; they live past the mountainous country of the Timals; nothing about them is known except that they and the Timals are aware of each other's existence; they recognize Yat, which implies some sort of regular contact, whether trade or warfare is unknown; "two long marches" or a quick flight by anotar from Timal.

Vanaja: 5(17) daughter of Tovar and Noola; theoretically turned into a neo-zaldar by Morgas, the Wizard of Venus, and kept in the back yard of their tower.

Vantor: 4(272) a klookor (lieutenant) of the Falsan Navy; gives Duare the use of his room before the battle with Panga; stabbed to death by Duare (p.282) after making advances.

var: M,1,2,3,4; Amtorian for "circle," as in Neovar and Ongvar, the Small and Great Circles.

Varo: 3(202,207) General Varo, a great general of Korva.

Vaxlap: M,MB.

Vejara: 3(306,309) one of Duare's ladies-in-waiting at the palace of Mintep in Kooaad.

Vepaja: 1(96),2,3,4; Mintep, jong; Duare, janjong, the Hope of Vepaja; the kingdom in former times extended from Strabol to Karbol and was not merely the island it has been reduced to now; population formerly in the millions, now vastly reduced; the Vepajans possess a longevity serum perfected a thousand years ago, hence it is not absolutely certain whether or not the rest of Amtor does too; rigidly stratified four-caste society intricately worked out by Burroughs and then demolished; presently Vepaja is all of the same class -- communism?; a length and excellent thumbnail history of Vepaja, LV-104 to 111.

vere: 2(109) "a huge, hideous lizard about twenty feet in length...covered with scales of red, black, and yellow arranged in intricate designs.... beautiful, but....it had a head not unlike that of a crocodile, and along each side of its upper jaw was a row of gleaming white horns. Across the top and down the sides of its head sprawled a single huge eye of myriad facets"; "prodigious tongue...evidently swallows its prey whole, its horns being probably solely for defence"; it exhales a fetid odor probably "intended to anaesthetize its victims."

vik: 4(193) Amtorian for "nine."

vik-ro: 1(182,193),2,3,4,5; element 93, according to Kamlot (Np 237 or Neptunium to Earthlings, created & proved 1934-40); when exposed to element 97, unnamed by Kamlot (Bk 245 or Berkelium, created 1949), creates the all-destructive t-ray.

Vik-vik-vik:

- a. 4(192,193) literally, "999"; jong of Voo-ad (a former half is now Vik-yor).
- b. Always the number-name of the jong of Voo-ad.

Vik-yor: 4(200,207) a Vooyorgan, off-split of Vik-vik-vik (Vik-yor being the left side and thus required to take a new name, the right side remaining Vik-vik-vik), making his name roughly "9-common," logically since he is the off-split of 999, the jong; it is a sport that cannot split; frees Duare in an access of slowly developing true sexuality; dies hideously (p.257) after gorging itself and trying to divide when that was impossible; "the de Medici of the amoebae."

Vilor: 1(251),2; a Thoran, pretending to be a Vepajan prisoner from the Sovong, later sailing on the privateering Sofal; appointed to guard Duare, steals her with aid of klangan; had long ago been sent from Thora to steal the secret of the longevity serum.

vir: 2(237) Amtorian unit of time, approximately 4 minutes Earth time.

Vodaro: M,MB,3(112) extends from the southern edge of the south temperate zone into the terra incognita of the antarctic; little is known of it; Carson claims to be Vodo, Tanjong of Vodaro, while speaking to the Toganja Zerka.

Vodo: 3(114,115) alias of Carson in Kamlot, after "homo" became unsafe; Prince of Vodaro to the Toganja Zerka, a soldier of fortune to others (though she knows it's a lot of basto).

vol: 4(53) unit of Amtorian currency; "has about the same purchasing power as our fifty-nine cent dollar" (c. 1946); this is in the Northern Hemisphere, and is perhaps the only word that is not the same as its equivalent in usage in the Southern Hemisphere, the pandar.

Vomer: 4(38) NH; a Myposan in charge of prisoners in Mypos.

vong: 1(246) Amtorian for "defend."

von Horst: 1(10) we learn that a report has come to Gridley from Sari that von Horst was found; query: is this information later inserted in the PELLUCIDAR Series?

voo: 3(89),4,5; Amtorian for "one, the, first"; "one in the sense both of number and of person (someone).

Voo-ad: 4(189,192),5; literally, "First City"; lies near the northern end of Anlap; situated on a river running due south; the city is circular, rather like two Havatoos joined along their diameters; burned to the ground by the revengeful beings formerly paralyzed in their zoo-museum.

voorkor: 4(159) literally, "one dagger"; Amtorian military title corresponding to captain (see "kloomed" for discussion of number of daggers).

voo-meds: 4(195) literally, the "one millions," the artisan class of Voo-ad.

Vootogan: 5(14) title of nobility, literally "first high man"; esp. in Gavo.

Vootoganja: 5(14) literally, "first high woman."

Vooyorgans, the: 4(193) the sexless beings of Voo-ad who reproduce "like the amoeba and other of the Rhizopoda," that is, they split down the middle, the right half retaining the name of the original person and the left being the new person; completely wiped out of existence when their zoo of paralyzed beings is freed; literally, the "First People"; some Vooyorgans suspected that the left side is analogous to the female, the right to the male.

vo-yor-yorko: 4(195) Amtorian for "100,000"; lower limit of the noble class of Voo-ad.

vulat: 4(138) Amtorian unit of measurement; its value is not given; however, the walls of Japal are 1 ted in height at their lowest, and a building on the other side of the wall has its roof only 1 vulat below the top of the wall at

(vulat)

that point, and consequently a vulat is shorter than a ted (1 ted = 13.2 Earth feet); since most Amtorian measuring is done in a decimal fashion, I would suspect that a vulat is a tenth of a ted, or approximately 1 foot 4 inches.

Vyla: 3(47) a man of Houtomai; shares a cave with Lula and Ellie.

Welsh, Jimmy: 1(27) helps Carson build his spaceship.

yan: 1(256) Amtorian for "friend"; as, ongyan: great-friend, ong: great.

Yan, the: 1(261), 2; a merchant ship of Thora, captured by the Sofal; set loose after being plundered, stripped of guns, and pressed of likely crewmembers.

Yat: 4(119) NH; chief of the Timals.

Yonda: 5(14) woman of Endar, son of Tovar and Noola; Klootoganja (Second Woman) of the house of Pandar; originally of the house of Tolan.

yorgan:

a. 2(210), 3, 4; seems to mean variously, common people, people, etc.

b. 2(210); the largest district of Havatoo, Yorgan, for the common folk; it lies in a semicircular area surrounding the scientists' sections; beyond Yorgan is the shopping and factory area, semicircularly surrounding Yorgan in turn; beyond that are the walls of the city.

Yorgan Lat: 2(230) in Havatoo; the inner boundary avenue of the Yorgan section, a semicircular street.

yorko: 4(158) Amtorian for "1000"; in Voo-ad, the royal class is below this number.

yorkokor: 4(158) literally, "a thousand daggers"; military title corresponding with colonel, a yorkokor commanding a thousand men; rank (in Mypos, at least) indicated by 3 gold armlets and 3 gold rings worn by the haft of his hook.

yor-san: 1(183), 2, 3, 4, 5; according to Kamlot, element 105 (Asimov's INTELLIGENT MEN'S GUIDE TO SCIENCE indicates Earthian science has not reached this element yet) is found in lor, and which, exposed to element 93, vik-ro, annihilates lor and provides Amtorian ships with unlimited power.

Yron: 4(56, 59) NH; a Myposan noble, purchaser of Carson (for \$5.90) and Kandar (for over \$300).

zaldar: 4(337), 5; the Amtorian beef cattle; "a most amazing appearing animal. It has a large, foolish-looking head, with big, oval eyes, and two long, pointed ears that stand perpetually upright as though the creature were always listening. It has no neck..." (there is a description of at least page length in EV-337 to 338, which is matched virtually word-for-word in WV); there is also the neozaldar, the second species, a smaller piglike animal.

zan: 2(194) Amtorian for "beast"; zangan:beast-man and gan:man, so zan:beast.

Zando: M,MB.

zangan: 2(189,190) Amtorian word, literally "beast-man"; white-skinned and almost hairless, they walk on all fours; their hind legs being short, they walk on their hind toes, their heels then being raised like hocks on horses; they walk flat on their palms, their hands being much like human hands; flat nose, broad mouth, undershot jaws, powerful teeth, savage eyes, small and close-set; they hunt in packs and are quite rare.

Zani: 3(70) anagram of Nazi; the Zanis are analogous to the Nazi party, complete with "Maltu Mephis" for "Heil Hitler," etc.

Zar: 1(96) Duran and his sons Olthar and Kamlot are "of the house of Zar."

Zerka: 3(108,114) by title The Toganja Zerka; her mate having been tortured and killed by the Zanis under the personal direction of Mephis because of his bitter opposition to the Zani cause, she became a Zani supporter (supposedly) to undermine Mephis and the Zanis by creating a raft of ridiculous customs (including a mockery of the Nazi goose-step); eventually poisons Mephis.

Zog: 1(187),2; one of the Soldiers of Liberty, formerly a slave, strong, good-natured, though lacking in intelligence.

zorat: 2(130,132),4,5; four-footed mount, size of small horse; humped; round and nailless feet ((like thoats)); an exceptionally long (and rather unnecessarily detailed) descr. on p. 130,132 of PV.

Zuppner (Captain): 1(10) the last loose end from the PELLUCIDAR Series.

Zuro: 1(80) Duran's mate in Kooaad.

THE AMTORIAN ALPHABET

A	÷	N	M	NG	W
B	l	O	o		
		P	W		
D	T				
E	+	R	⊙		
F	α	S	⊙		
G	2	T	~		
H	Ω	U	ee		
I	+	V	~		
J	W				
K	Λ	X	Λ		
L	∇				
M	U	Z	W		

Afterword

Considering the fact that Edgar Rice Burroughs died over thirteen years ago, the Burroughs field is astonishingly active. In fact, the interested person who is fully and accurately informed of the situation at a given time, may discover just days later that his impressions have been completely overturned by one of the developments that have come lately with such speed.

To consider one activity of Burroughs devotees, it seems that Barsoomian cartography is becoming a favorite hobby activity. The first map of Burroughs' Mars that I ever saw was Henry Hardy Heins' Spartan graph in Alvin Fick's booklet THE DREAM WEAVER, published last fall. Larry Ivie was already at work on his map when the Heins version appeared, and since the announcement of THE READER'S GUIDE TO BARSOOM AND AMTOR (in fact, since the release of a few advance copies of Mr. Ivie's map) rather elaborate Mars maps by Mike Resnick and Frank Brueckel have appeared, in ERB-dom and The Burroughs Bulletin, respectively; the latter accompanied by an unearthed map by Robert H. Schlutter dating from 1948.

Then, to top things off, Stan Vinson released the text of a personal letter of ERB's, also of 1948 vintage, in which the "Greenwich problem" to which so much attention has been devoted over the years (as it is in the present publication) is revealed as really no problem at all. It is the result of a simple slip of the pen. Exum is the Barsoomian Greenwich, not Horz. The contrary reference in THUVIA was a plain error. Period.

On the more significant matter of ERB's unpublished manuscripts, it is my most pleasant duty, as Editor of Canaveral Press, to edit these manuscripts, assemble the shorter ones into book-size groups, and shepherd them through the production process. It is a slightly awesome responsibility, but one joyfully undertaken, to know that the jacket texts and (where appropriate) introductions which I write will be "forever" associated with the works of ERB.

At the same time, I cherish the opportunity to do all in my power to assure that the new Burroughs books, and new editions of old Burroughs books, will be of the highest quality and most attractive appearance. In cases of reissues, where direct duplicates of older editions are to be made, only minimal control can be exercised over the appearance of the new issues.

But where new manuscripts are involved, or where magazine stories are collected; in short, wherever new typography, jackets, and/or illustrations are to be used, the opportunity to influence the appearance of the book is naturally greater. In all cases, to the very limits of my ability and my authority, Canaveral editions will be marked by:

- * Typography that is clear and attractive
- * Illustrations that are both faithful to the text and artistically valid
- * Jackets that are eye-catching and commercially appealing, yet that will make a permanent contribution to any reader's bookshelf

The publicity already attended the discovery of the Burroughs manuscripts and the plans of Canaveral Press to issue them, makes a detailed description of the find unnecessary at this time. It should be noted, however, that the oversights and errors of past years (referred to earlier by Mr. Van Arnam) were those of a former administration of ERB Incorporated.

Since resuming direct control of the corporation, the Burroughs family have done much to retrieve the errors of the former administration. Particularly under the energetic leadership of Mr. Hulbert Burroughs, the former debacle has been limited in effect, and has been more than offset by the accomplishment of the contract with Canaveral for the publication/republication of most of Burroughs' works, both old and new.

This fall Canaveral Press will reissue seven of the most sought-after, out-of-print Burroughs titles: LOST ON VENUS, CARSON OF VENUS, ESCAPE ON VENUS; THE MUCKER, THE TARZAN TWINS; BACK TO THE STONE AGE, LAND OF TERROR. Even more exciting, Canaveral will issue the first new Burroughs book since 1948: SAVAGE PELLUCIDAR. The seventh and final volume of the Pellucidar series, and a fine swashbuckling tale in its own right, SAVAGE PELLUCIDAR is composed of three interconnected magazine novelettes plus a fourth, concluding segment of 20,000 words, never before published in any form. At 80,000 words, SAVAGE PELLUCIDAR is a whopping grand book.

In May, 1964, Canaveral Press will issue five new Burroughs books, tentatively planned as follow:

TARZAN AND THE MADMAN ... a brand new Tarzan novel!

TARZAN AND THE CASTAWAYS ... all the Tarzan "magazine stories" that have never before been published in book form!

TALES OF THREE PLANETS ... "The Wizard of Venus" -- never before published in any form -- plus "John Carter and the Giant of Mars" and "Skeleton Men of Jupiter", first time in book form.

BEYOND THE FARTHEST STAR ... The title story and its never-published sequel, "Tangor Returns" -- plus "Resurrection of Jimber-Jaw" and possibly "The Scientists Revolt."

I AM A BARBARIAN ... an outstanding novel of Old Rome, unquestionably destined to stand among the very finest of Burroughs' works, a shining example of the author at the very top of his talent!

In the years to follow, Canaveral Press will continue to issue new Burroughs books, interspersed with reissues of the finest and the rarest of ERB's older works.

It can truly be said that after too many years of unfortunately enforced inactivity, the "public domain" publications of 1962 sparked renewed interest in ERB and his works. The issuance of new, authorized editions by Canaveral Press in 1963, 1964, and the years beyond, represents the complete revival of the works of the great spinner of yarns.

I can only echo the words of Mr. Hulbert Burroughs, in a message sent by him to a science fiction convention where the manuscript announcement was made this spring: "I wish he could have lived to see it."

