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# A MAP OF BARSOOM

BASED ON DATA COMPILED FROM THE BOOKS BY EDGAR RICE BURROUGHS

by Frank J. Brueckel

Have you ever looked at an astronomical photograph or drawing of the planet Mars in a book, magazine, or newspaper and wondered if, when that picture was made, the telescope through which it was recorded had been peering across the unimaginable abyss of space at the twin cities of Helium, or upon the long-vanished sea of Throxus, or into the mysterious Valley Dor? Those who have read the published accounts of the experiences of John Carter upon the planet Barsoom must surely have speculated sometimes just where the cities and lands mentioned in these books are to be placed upon a chart of Mars as prepared by the modern earthly astronomer.

The earliest known telescopic drawing of Mars on which a definite, real surface feature of the planet is recognizable was made by the Dutch scientist Christiaan Huygens in 1659; it shows a large dark triangular area which today's astronomers call Syrtis Major—a name bestowed by Giovanni Schiaparelli (discoverer of the famous canals) in 1877. This is one of the most prominent and unmistakable markings on the planet's disk; it enabled Huygens to establish that the Martian day is in the vicinity of 24 hours in length. But Mars is a difficult object to observe even in large modern telescopes because of the dusty turbulence of our own dense atmospheric blanket, and with the small, inferior instruments in use during the 17th and 18th centuries it was not possible for earthly star-gazers to construct a coherent chart of the Martian surface with any approach to accuracy. However, it was established that this surface consisted of more or less extensive dark blotches (presumed to be seas and oceans) on a reddish background (considered to represent dry land), with bright white caps at the planet's poles—obviously these were ice-fields like those of our own earth. It was not until the 1830's that the Germans, Beer and Madler, produced the first Martian map summarizing all known areographic data in one picture. While the Beer-Madler maps of 1832 and 1840 show only gross features, one can easily recognize the dark regions which today are called Mare Erythraeum, Aurorae Sinus, Solis Lacus, Tithonius Lacus, Mare Sirenum, Mare Cimmerium, Mare Tyrrhenum, Syrtis Major, Sinus Sabaeus, and Mare Acidalius. Even a couple of "canals" appear: the Nectar and the Agathodaemon. Kaiser's map of 1864 depicts the major areas of the planet with considerable accuracy; the resemblance to modern charts is quite clear. It too shows the Nectar canal extending westward from the shore of Mare Erythraeum to

Solis Lacus, and the superb, delicate drawings of Dawes made in 1864-65 contain definite suggestions of a number of "canals".

Richard Proctor's map of 1867 was the first in which names were assigned to various Martian "geographical" regions, both light and dark. Following the precedent which had been established for the moon, Proctor gave these regions the names of eminent astronomers, particularly those who had devoted much attention to Mars. Thus on his map we find "Kaiser Sea" (Syrtis Major), "Dawes Ocean" (including modern Iapygia, part of Mare Tyrrhenum, and Ausonia Borealis), "Lockyer Land" (Hellas), etc. The present system of Greek and Latin nomenclature for Martian regions was introduced by Schiaparelli in 1877, but Proctor's designations are still found on Langley's map of 1892 and (in Gallicized form and with some important changes) on Flammarion's maps of 1876 and 1892. By the turn of the century, however, Schiaparelli's scheme of areographic nomenclature had been adopted by all professional astronomical societies.

The chart which accompanies this discussion is based mainly on de Vaucouleurs' map of Mars (1949). No two maps of the planet are quite identical; the sizes, shapes, colors, and intensities of the surface features vary considerably from one opposition of the planet to another because of changes in the angle at which they are presented to earthly view, the clarity and steadiness of our own atmosphere, and mainly the seasonal and climatic conditions in different parts of Mars itself at the time of observation. The dark, relatively heavily vegetated areas of Mars shrink, grow, and change in outline and prominence according to various local factors of season and weather, and although the larger ones retain their basic forms and positions they often exhibit considerable variation in detail. The controversial "canals", being objects at the limit of visibility, are particularly prone to differences of representation in the drawings of different observers; for this reason I have omitted all but the most pronounced of them.

Conventionally, maps of Mars are published with south at the top and east to the left, to agree with the planet's aspect in the usual astronomical telescope which inverts images. However, the chart presented with this article has been turned around to show north at the top, and east to the right in accordance with the customary presentation of terrestrial maps.

It will be recalled that according to A PRINCESS OF MARS, Carter's first advent upon Mars occurred in March, 1866—a year before the publication of Proctor's map and eleven years prior

to the discovery of the "canals" and the two Martian moons by terrestrial astronomers. His first return to earth was ten years later, but it seems probable that this is merely a round figure and that actually the events described in the last chapters of the book occurred some months prior to the famous opposition of 1877. (Indeed I wonder if there is not an error in the opening chapters of the book; it would appear likely that Carter's transplantations from planet to planet would take place when Mars is in the general vicinity of opposition, but in March of 1866, Mars was on the far side of its orbit relative to the earth, with rather more than 200 million miles between the two planets. On the other hand, there was an opposition of Mars in early January of 1867, when the planet was a bit over 60 million miles from the earth.) In writing the account of his Martian adventure in the winter of 1885-86, Carter seems to have been unaware how recently our astronomers had discovered the canals and the two satellites of the Red Planet. Perhaps he never saw any of the maps of Mars drawn by Proctor, Flammarion, or Schiaparelli—at any rate, neither at that time nor in any of his subsequent returns to his natal planet did he relate any of the Martian localities mentioned in his stories to the regions depicted on areographic charts.

Nevertheless, various clues have been provided in the books which permit a plausible location of many Barsoomian cities. There are some inconsistencies in the areographical data provided by the Mars books, the possible causes of which are somewhat conjectural. In part they may be due to an occasional confusion of Barsoomian and terrestrial units of distance. Further, Burroughs tells us that some of the stories were related to him verbally, and very likely his recollection of various details was faulty. Another point to consider is that the original manuscripts passed through several hands before seeing print—and anyone who has dealt with editors and printers is aware of the mistakes that can creep into a piece of writing in this process. For example, in a footnote on p. 94 of THUVIA, MAID OF MARS, Burroughs presents a table of Martian linear measure in which a couple of mistakes are clearly evident. Thus, one line reads:

200 ads = 1 haad,

but it is clear from the context that a zero has been omitted from the left side, so that the equation should properly read:

2000 ads = 1 haad.

Secondly, Burroughs made an arithmetical error (putting one foot equal to ten inches) in writing 1 haad = 2339 ft. (approximately), whereas actually

1 haad = 23,388 in. = 1949 ft.

A corrected table of Barsoomian linear measure follows:

TABLE I  
Table of Linear Measure  
and English Equivalents

1 sofad = 1.17 inch, approx.
10 sofads = 1 ad = 11.694 in.
2000 ads = 1 haad = 23,388 in. = 1949 ft. = 0.36,913 mi.
100 haads = 1 karad = 36.91,287 mi. = 1° of arc on equator.
360 karads = 13,288.6 mi. = 1 equatorial circumference of Mars.
1 mile = 2.71 haads = 0°.0271 of arc on equator.
Equatorial diameter of Mars = 4,230 mi. = 11,463 haads.

In later books Burroughs often betrays confusion when translating distances from Martian into

English units.

In the great majority of cases the locations of Barsoomian cities are given either in terms of latitude and longitude, or in terms of approximate distances and general directions from other cities. The fortunate and curious coincidence that the Martians, like ourselves, divide the circle into 360 equal parts would make the placing of cities a fairly simple matter if we were told just where the Barsoomian Prime Meridian, which passes through the ancient city of Horz, is to be drawn upon a chart of the planet.\* Earthly astronomers arbitrarily have chosen as zero longitude the meridian bisecting the formation which Proctor called Dawes Forked Bay (now named Sinus Meridiani) at the western extremity of Sinus Sabaeus; but of course this is not necessarily the base-line selected by the Barsoomians in setting up their global coordinate meshwork. Consequently, although the latitude of a place tells us how many degrees north or south of the Martian equator it lies, the Barsoomian longitude gives us no information about its angular distance east or west of the astronomer's zero meridian.

The first definite clue we find upon which to base the location of Barsoomian cities and countries (other than those in the polar regions, which we will not consider in the present article) occurs in THE CHESSMEN OF MARS, where Gahan of Gathol tells Tara about his city and kingdom: it lies northwest of Helium (pp. 20, 23), on an island in Barsoom's largest "ocean", surrounded by a great salt marsh (p. 13). The country extends from the equator to 10° N, and from 10° W to 20° W of Horz (p. 14). If we look at a chart of Mars and assume—as all the available astronomical evidence would indicate—that the darkish, blue-green areas are the beds of the planet's vanished seas, we observe that by far the greatest part of these former oceans lies in the southern hemisphere. But there is one large, very dark region which thrusts up far north of the equator: namely, the Syrtis Major, the planet's most prominent marking. This, therefore, must be the region in which Gathol is situated.

Suppose then we place the city of Gathol in Syrtis Major, say about 5° N, 70° E of the terrestrial astronomer's zero meridian, which passes

\* In SYNTHETIC MEN OF MARS and LIANA OF GATHOL the Barsoomian Greenwich is given to be the city of Exum. Since earlier books refer to ancient Horz as the origin of longitude, I can only conclude that Exum is a modern city which has only in very recent times been adopted by the Martians as the starting-point of their east-west reckoning.

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Worlds News Service.....J. Gridley

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through Sinus Meridiani. We will not be far wrong then if we take the Meridian of Horz to lie 85° E of Sinus Meridiani. To find the astronomer's longitude of a city whose Barsoomian longitude (from Horz) is given we need but add 85° to the latter, taking Barsoomian longitudes west of Horz to be negative.

Having placed Gathol, we can at once locate Manator 22° to the west (CHESSMEN, p. 188), at, say, 4° N, 48° E on our accompanying chart of the planet (in the region of Aeria).

There are three cities whose coordinates are given explicitly in the books, as follows:

Duar, at 15° N, 20° E of Horz (THUVIA, 196), which on our map is in Aethiopia east of the Thoth-Nepenthes "canal", at 15° N, 105° E.

Aanthor, 50° S, 40° E of Horz (THUVIA, 196), or on our map at 50° S, 125° E (on the eastern boundary of Ausonia Australis, near the southern end of the Xanthus strait).

Zodanga, 30° S, 172° E of Horz (SWORDS OF MARS, 15), or slightly west of Solis Lacus; 30° S, 103° W.

We are also told that Jahar lies in the "southwestern hemisphere" somewhere near 30° S, 35° E of Horz (A FIGHTING MAN OF MARS, pp. 38, 42). Apparently the writer means "southwestern quadrant" and the longitude of Jahar must be roughly 35° west of Horz (near NW boundary of Hellas, northern end of Yaonis Fretum; 30° S, 50° E).

The locations of various other cities may now be deduced from their given distances and directions from the foregoing. Thus, Phor Tak's castle, JHAMA, is 2,500 haads west of Jahar (FIGHTING MAN, 194), though on p. 176 it is said that 4,000 haads lie between Jhama and Jahar. Probably the latter figure refers to the easiest, not necessarily shortest, land-route between the two places. If then Jhama lies some 2,500 haads due west of Jahar, its longitude is about 64° W of Horz (northern Noachis, 30° S, 21° E).

Lothar is over 150 miles (about 410 haads) NW of Aanthor (THUVIA, 157), i.e., in Ausonia Australis, about 48° S, 121° E.

Helium is at 30° S lat. (LLANA, 16), over 8,000 haads northeasterly of Lothar (THUVIA, 94), either 1900 miles (5,150 haads) W of Zodanga (SWORDS, 15) or 1,000 miles (2700 haads) SW of Zodanga (PRINCESS, 279). Here we have a serious disagreement over the distance and direction of Helium from Zodanga, but the datum of 1,000 miles southwestward does not fit at all well with other available information; the bulk of evidence indicates that 30° S is indeed the correct latitude of Helium, so I reject the reference in A PRINCESS OF MARS as erroneous, though I can offer no obvious explanation of it. If then Helium is on the same parallel with Zodanga and 1900 miles to the west, it would be at about 112° E of Horz and less than 6,000 haads from Lothar. But if Burroughs mistakenly wrote "miles" when he should have said "haads" in SWORDS OF MARS (p. 15), the longitude-difference between Zodanga and Helium reduces to about 22°; Helium is then 150° E of Horz and roughly 8,000 haads from Lothar, as required. Hence I place Helium off the eastern tip of Mare Sirenum, at 30° S, 125° W.

In A PRINCESS OF MARS we are told that the Tharks roam a tract of semi-arid land between 40° S and 80° S, with their headquarters, the ancient city of Thark, in the southwest corner of this district (p. 69). Hence Thark should be somewhere between 75° S and 80° S. But we are further informed that 50 miles south of Thark a waterway leads to Helium, 500 miles distant toward the northwest. This would place Helium at most about 10° farther north of Thark, or near 65° S latitude. But if Helium is actually at 30° S as we have reason to believe, then the city of Thark is situated in the northwest corner of the region which the hordes of Thark occupy, i.e., near

40° S. Probably the reference to the "southwest corner" is due to a transcriber's error. We may surmise then that Thark is situated approximately 500 miles southeast of Helium (PRINCESS, 178, 179), let us say at 41° S; then its longitude is about 115° 4' W, placing the city near the western edge of Sinus Aonius.

Deserted Korad, near which Carter first appeared on Mars, lies on the eastern shore of a long-vanished sea (PRINCESS, 116) in an unfrequented area far north of the Tharks' own territory (p. 69). It is twenty days' march by thout and zitidar from Korad to Thark (p. 170). As we may safely assume an average rate of, say, 75 miles travel per day, Korad should be at least 1,500 miles (roughly 4,000 haads or 40° of arc) northward of Thark, and hence fairly near the equator. I therefore place Korad on the edge of Phoenicis Lacus, at about 7° S, 109° W.

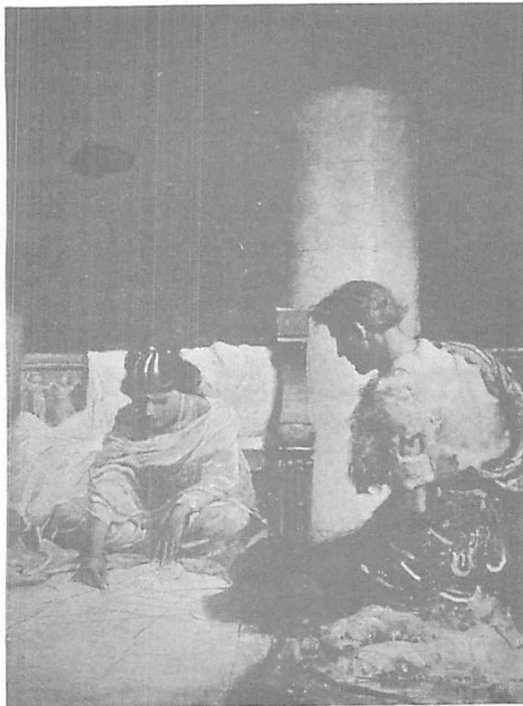
There is some disagreement concerning the location of the Heliumitic city of Hastor. From THE GODS OF MARS, p. 279, we learn that Hastor is "far to the southwest of Helium," about two hours' flying time from the Twin Cities (p. 302), which would mean around 400 miles or 1100 haads if the flier is moving at top speed. On the other hand, in LLANA OF GATHOL, p. 199, we read that Hastor lies directly south of Greater Helium, about 500 haads or less than 200 miles. No explanation of the discrepancy appears evident. Personally, I favor the former indication of Hastor's position, since I doubt if Carter would have referred to Hastor as "far" from Helium if its distance were a mere 200 earth miles. With due appreciation of the uncertainty involved, I have marked Hastor on the chart at about 38° S, 133° W, which puts it about 1,000 haads from Helium.

Two green hordes bear the name of Warhoon—the northern Warhoons whose territory is adjacent to that of the Tharks on the east (PRINCESS, pp. 193-5, 207, 211), and the southern Warhoons who, though bearing the same name, appear to be a separate nation (GODS, 217). As the green men take their tribal names from the vanished nations whose decaying cities they haunt, both Warhoon hordes evidently occupy the same general region on the planet. The area in question is undoubtedly that portion of the southern "ocean" known as Sinus Aonius, south and slightly west of Solis Lacus. While no really good clues are furnished regarding the exact positions of the Warhoon cities, it is clear that Northern Warhoon must lie essentially eastward of Thark a few hundred miles; I place it roughly at 42° S, 106° W. The location of the Southern Warhoon city from which Carter rescued Tars Tarkas after escaping from Omean with Carthoris and Xodar is much more indefinite; however, the fugitives from Omean reached its vicinity in less than a night's flight from Omean at the South Pole (GODS, 213), and if they travelled at about 200 miles (say 500 haads) per hour for five or six hours before landing, they must have covered from 25° to 30° of latitude. Tentatively, then, let us place Southern Warhoon at 60° S, 110° W, though this position may be considerably in error.

From Northern Warhoon the nearest waterway lies to the northwest, two weeks' journey on foot (PRINCESS, 219, 221). On this canal, which leads to Zodanga, stands the Atmosphere Plant, another 10 or 11 days' walk from the city (p. 238). A likely location for the factory, which supplies all Barsoom with air, is in the vicinity of 34° S, 109° W, in the area of Thaumasia south of Solis Lacus.

The city of Torquas lies a full 7,000 haads westerly, or perhaps slightly northwesterly of Helium (CHESSMEN, 34) on the route from Helium to Jahar and some 70 karads from the former (FIGHTING MAN, 43, 45). In the latter reference we are reminded that a karad is equivalent to 1°

of longitude, but this is true only along the equator. More generally, 1 karad =  $1^\circ$  of arc on any great circle of the planet, and when distance is expressed in karads along any other route it is safe only to use the equivalence 1 karad = 100 haads. As Helium and Jahar are both on essentially the same parallel ( $30^\circ$  S), 7,000 haads westward from Helium along this parallel amounts to a trifle under  $81^\circ$  of longitude. This places the city of Torquas near  $30^\circ$  S,  $69^\circ$  E of Horz (154° E of Sinus Meridiani). Quite arbitrarily I have marked it a little northwest of this position, at about  $27^\circ$  S,  $149^\circ$  E, in Mare Cimmerium. The territory of the Torquasians may be considered to comprise approximately Mare Cimmerium, Hesperia, and Mare Tyrrhenum. This vast area, plus Iapygia, Libya, and Syrtis Major, constitutes the ancient ocean of Throxus.



SHE DREW UPON THE MARBLE FLOOR THE FIRST MAP OF THE BARSOOMIAN TERRITORY I HAD EVER SEEN.

Illustration by Frank Schoonover for A PRINCESS OF MARS

Bantoon lies southwest of Manator (CHESSMEN, 150) some 50 or 60 hours' drifting on a disabled flier (pp. 151-3)—hence a matter of a few hundred miles—and beyond Torquas from Helium (p. 34). The great storm which carried Tara's flier to it bore her along at nearly 600 haads an hour, and some thirty hours passed before it began to abate (p. 41). Allowing for variable wind velocity, Tara's flier must have covered approximately a semi-circumference of the planet between Helium and Bantoon. We will be reasonably correct then in locating Bantoon slightly north of the eastern end of Sinus Sabaeus, about  $48^\circ$  W of Horz ( $3^\circ$  S,  $37^\circ$  E).

The position of the city of Kaol is not given precisely, but in THE WARLORD OF MARS, p. 86, we are informed that the country lies along the equator almost halfway around the planet to the east of Helium; that it is a sunken area, swampy and heavily forested. This description seems to be best fitted by the region of Sinus Sabaeus, a very dark, narrow strip stretching east and west slightly south of the equator. I place the city of Kaol at about  $5^\circ$  S,  $25^\circ$  E.

Xanator is said to be northeast of Jahar (FIGHTING MAN, 75) and about 2,000 haads beyond the

city of Torquas from Helium (p. 47), near the southwestern boundary of Torquasian territory (p. 32). As Tan Hadron apparently followed the 30th parallel fairly closely en route to Jahar, this implies that Xanator must lie at essentially the same latitude, i.e., east rather than north-east of Jahar. 2,000 haads would then mean some  $23^\circ.1$  of longitude westward of Torquas. Allowing a bit more distance, Xanator may be located near the eastern border of Mare Tyrrhenum. I put it at  $28^\circ$  S,  $125^\circ$  E.

The Jaharian province of U-Gor lies some 1,000 haads SE of Jahar, 2,000 haads SW of Xanator, and 7,000 haads south of Gathol (FIGHTING MAN, 261). These specifications are best met by the vast, barren, approximately circular area known as Hellas, containing near its center the green oasis called Zea Lacus, and often depicted on maps with two "canals" crossing it perpendicularly to each other. No single point of the region simultaneously satisfies the three distances given in the data, but presumably these distances represent rough estimates to different points of the territory—somewhat like saying that Europe is 3,500 miles east of New York, 1,200 miles north of Cairo, and 4,000 miles northwest of Calcutta.

Tavia's native city of Tjanath lies southwest of Jahar and over 6,000 haads from Xanator (FIGHTING MAN, 80); also we are told that it is 1,500 haads southwesterly of Jhama (p. 194). Assuming that we have located Jahar, Jhama, and Xanator with fair accuracy, then if Tjanath is only some 6,000 haads from Xanator it must lie far south of Jhama, or else southeastward from it and essentially south of Jahar. Alternatively, we may retain the distance and direction of Tjanath relative to Jhama if we concede that it lies much more than 6,000 haads from Xanator. The latter appears more acceptable, for we are told (p. 80) that Tavia and Hadron were already well en route from Xanator to Jahar when they decided to head for Tjanath, 6,000 haads away. Although considerable uncertainty is involved, I have placed Tjanath at  $44^\circ$  S,  $72^\circ$  W of Horz ( $44^\circ$  S,  $13^\circ$  E on the chart), which puts it at 1,535 haads from Jhama and 8,400 haads from Xanator along shortest (great circle) routes.

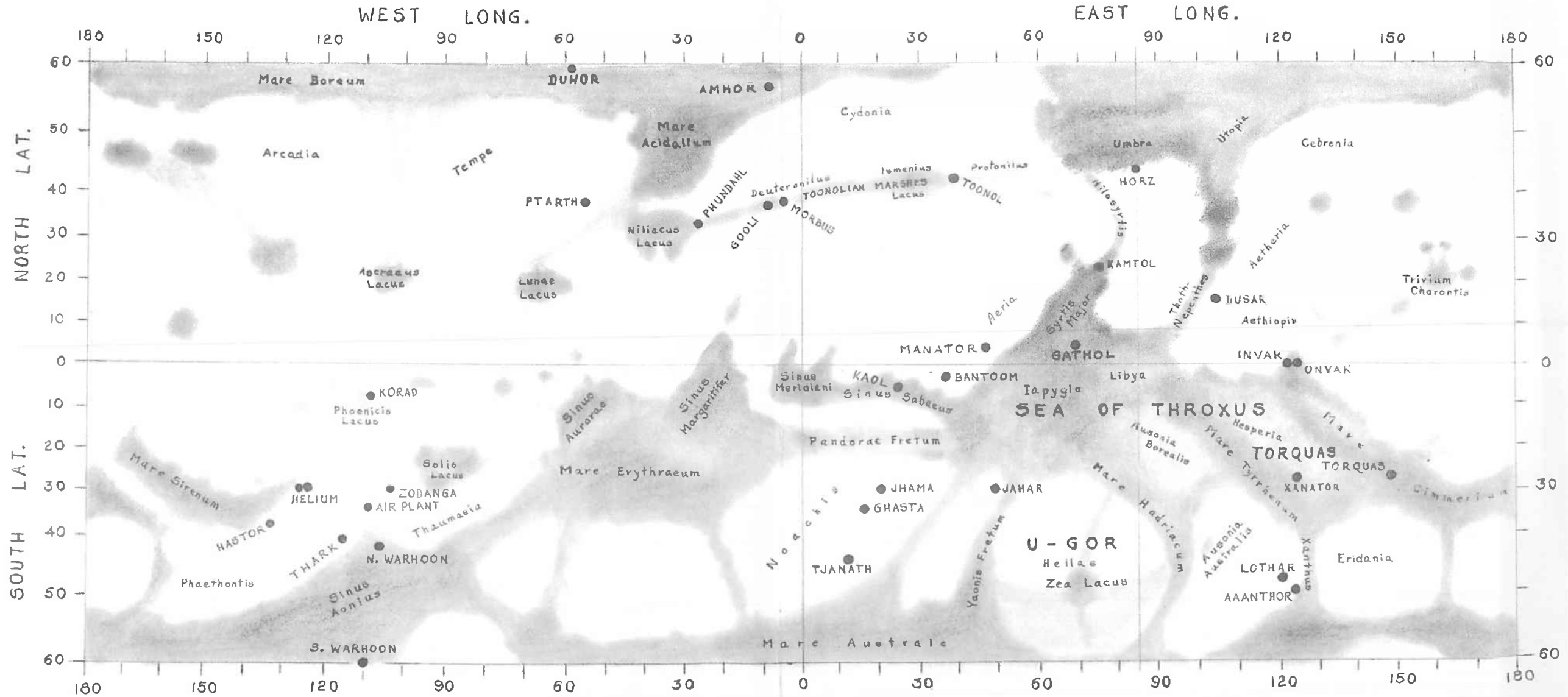
One can make only a rough estimate of the position of the crater-valley Hohr, in which stands Ghasta, ruled by the mad jed Ghron. It lies SW of Jhama (FIGHTING MAN, 170) at no great distance, since their balloon carried Hadron and Nur An from Ghasta to Jhama in a bit less than a full night's flight (p. 171)—a fair guess would be 400 to 500 haads. As Tjanath is some 1,500 haads SW of Jhama, Ghasta lies between them. The River Syl, which passes beneath Tjanath and through Hohr, must flow northward for roughly 1,000 haads (400 miles) from Tjanath to Hohr. A plausible location of Ghasta then is in northern Noachis, about  $34^\circ$  S,  $16^\circ$  E.

Archaic Horz is situated about 5,000 miles ( $135^\circ.5$  of arc) northwest of Helium (LLANA, 17) and some 4,000 haads northeasterly of Gathol (p. 89). The point on the meridian of Horz, north of the equator, which is  $135^\circ.5$  from Helium is at lat.  $71^\circ 23'$  N, which seems unreasonably far north; but the northern point on the same meridian which is 40° from Gathol is at lat.  $42^\circ 43'$  N, which is much more plausible. The most reasonable location of Horz seems to be on the southern edge of the boreal "ocean", at  $44^\circ$  N. This is about 4,100 haads from Gathol and  $152^\circ.5$ , or 5,630 miles, from Helium. (Southern edge of Umbra;  $44^\circ$  N,  $85^\circ$  E.)

About 2,500 haads southward and slightly west of Horz lies the deep valley in which the isolated colony of First Born have their city of Kamtol (LLANA, 89, 91). This must be very near the northernmost tip of Syrtis Major, where the



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curving Nilosyrtris "canal" enters (roughly 23° N, 75° E).

The forested region in which are hidden the cities of Invak and Onvak can be placed somewhere south and east of Dusar—probably in the Sinus Gomer at the northern extremity of Mare Cimmerium. Carter tells us that following their escape from Pankor he and Llana were flying south to Gathol, but over Horz changed their course southeastward toward Helium (LLANA, 245) and, avoiding unfriendly Dusar which lay in their path, came to the Forest of Lost Men. According to Ptor Fak the Zodangan, the country lies on the equator (p. 261). I believe therefore that the Forest of Lost Men is the northern tip of Mare Cimmerium, which juts slightly above the equator. The relative positions of Invak and Onvak are not specified, so we can say only that both cities are at about 0° lat., 124° E long.

The cities I have found most troublesome to locate satisfactorily are those in the general area of the Toonolian Marshes—Ptarth, Duhor, Phundahl, Amhor, Morbus, Gooli, and Toonol—which occur in THE MASTER MIND OF MARS and SYNTHETIC MEN OF MARS. The various distances among these places which have been given are not entirely consistent and it seems necessary to rely more on general considerations than on specific figures, though I wish to attach as much weight as possible to the latter.

In LLANA OF GATHOL Carter, en route from Helium to Horz, crosses the equator some 1,600 miles east of the meridian of Exum (p. 16). This is about 43° 3' of arc. Assuming that we have correctly placed Helium and Horz, and that Carter was following a great-circle route, the point at which he crossed the equator is at about 118° 3' E of Horz. Hence the Meridian of Exum is 75° E of Horz (160° E of Sinus Meridiani).

Now we are told in SYNTHETIC MEN OF MARS that the point 15° N, 150° W of Exum is about 4,500 haads southeast of Duhor and 2,600 haads southwest of Phundahl (p. 16). This would place Duhor and Ptarth somewhere northward of Sinus Meridiani, since Ptarth is south and a little east of Duhor (MASTER MIND, 119). But THUVIA, p. 94, says Ptarth lies 9,500 haads NE of Helium, while SYNTHETIC MEN, p. 14, asserts that Duhor lies 10,500 haads northwest of Helium. Obviously there is some confusion here about directions; my suspicion is that Burroughs wrote "west" a couple of times when he meant to write "east"—an error which is very easily committed (I fell into it twice in the original draft of this article). The easiest answer appears to be that Carter and Vor Daj found themselves, the morning after setting out for Duhor, at 15° N, 150° east of Exum (i.e., at 15° N, 50° W of Sinus Meridiani), and that Duhor is some 10,500 haads northeast of Helium (SYNTHETIC MEN, 14, 16).

On this hypothesis we find after a little calculation that Duhor is at approximately 59° 6' N, 58° 2' W.

Looking to the northeast of the point 15° N, 50° W, we see at a couple of thousand haads the large triangular dark area called Niliacus Lacus, and stretching away from its eastern edge clear over to the northern end of the Nilosyrtris strip the narrow, dark belt which astronomers have named the Deuteronilus-Protonilus canals, meeting in the wider region known as Ismenius Lacus. It seems rather obvious that this belt, or at least part of it, must be identified with the Toonolian Marshes, which according to Ulysses Paxton, lie in the "northeastern hemisphere" (MASTER MIND, 117), extend some 1,800 miles east and west, and in some places are 300 miles wide (p. 130). At their western end is the city of Phundahl (p. 130). The point from which the Deuteronilus leaves Niliacus Lacus is at about 33° N lat.; if we assume this to be the site of Phundahl we find the

city to be a little over 2,600 haads NE of the point 15° N, 50° W. We may, therefore, place Phundahl at 33° N, 26° W.

Ptarth is situated a full 13,500 haads eastward of Dusar (THUVIA, 237), 9,500 haads NE of Helium (p. 94). If these are great-circle distances they are not mutually consistent with our previously-determined coordinates of Dusar and Helium. However, it is unlikely that the former figure refers to a geodesic (or should I say "areodesic"?) path, for such a route would leave Dusar more toward the north than the east and would enter Ptarth from the northwest; but Burroughs is quite clear that aircraft plying between the two cities pursue an essentially east-west course (pp. 9, 237). We are told also that Ptarth lies south and a little east of Dusar (MASTER MIND, 119), which means that actually the distance to Ptarth is less if one travels westward from Dusar. It seems probable, however, that this shorter course has not been commonly used because it leads through the hostile regions around the Toonolian Marshes which lie to the east of Ptarth. Likewise the minimum-distance, great circle route between Ptarth and Dusar leads across the arctic regions, which until very recent times were most forbidding to the peoples of lower latitudes. As Ptarth is west of Phundahl, at about the same distance as separates it from Duhor (MASTER MIND, 119), its latitude must be only slightly higher than that of Phundahl. If we tentatively put it at 37° 5' N, 54° W, its arc distances from Helium, Duhor, and Phundahl are 9,465 haads, 2,225 haads, and 2,085 haads respectively, nicely satisfying the criteria on the position of Ptarth relative to these three cities. The shortest route between Dusar and Ptarth is an arc some 12,390 haads in length extending over the arctic zone, slightly westward of Dusar and entering Ptarth from the northeast. An eastward course from Dusar to Ptarth is nearly 18,000 haads in length, rather than 13,500 as stated in THUVIA, p. 237.

At the eastern end of the Toonolian Marshes, 1,800 miles (4,900 haads) or thereabouts from Phundahl, is the city of Toonol (MASTER MIND, 117, 130). It seems to me that the most reasonable position for the city is where the Protonilus "canal" begins to widen out into Ismenius Lacus, say around 43° N, 40° E. This makes the distance between Phundahl and Toonol some 5,160 haads or 1,900 miles. "A full 7,800 haads" are said to separate Toonol from Duhor (MASTER MIND, 87), but if so, we must put Toonol considerably farther east and greatly increase its distance from Phundahl. With the assumed location of Toonol, the distance to Duhor is only a trifle over 1,500 haads.

In the marshes are the islands of Morbus and Ompit, but their exact locations are rather vague. According to SYNTHETIC MEN, pp. 33-34, Carter and Vor Daj after their capture near Phundahl were carried to Morbus by malagors flying some 60 miles per hour for perhaps ten hours. This places Morbus approximately 600 miles east of Phundahl, or say at 37° N, 5° W. Gooli, on the island of Ompit, lies at a rough estimate 5 hours' malagor-flight westward of Morbus (p. 214)—a matter of maybe 150 miles, since the bird carrying Janai and Tor-dur-bar was very tired and so would travel rather slowly. I therefore place Gooli at about 36° N, 8° W.

Somewhat over 700 miles (roughly 2,000 haads, or 20° of latitude) north of the Toonolian Marshes is Amhor (SYNTHETIC MEN, 36, 245), which must then be around 55° N. Vor Daj says (p. 245) it is some 750 miles "directly north" of the spot where he and Janai were picked up by an Amhorian flier, a week's slow travel by boat westward of Gooli (p. 236). As this point can hardly be more than 100 miles west of Gooli, and as we also read (p. 36) that Amhor is north of Morbus, we

(continued on page 27)

# TARZAN GOES TO INDIA

A MAURICE B. GARDNER REVIEW

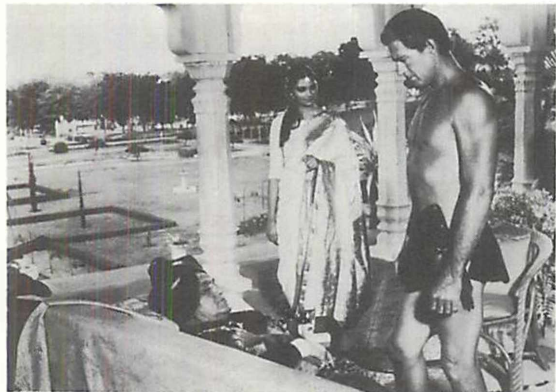
Metro-Goldwyn-Mayer presents the Sy Weintraub production of Edgar Rice Burroughs' "Tarzan Goes to India". Produced by Sy Weintraub. Directed by Robert Hardy Andrews and John Guillermin. In Metrolcolor and Cinemascope.

Let me preface this revue with a few words that I hope will not be tiring to the reader. With mixed emotions I went to see the new Tarzan film at a favorite theatre in my home city. I could not forget that the new screen Tarzan—No. 12—played by Jock Mahoney, had been as ruthless as a villain could possibly be in the last Tarzan film with Gordon Scott as the star.

I have been fortunate to have seen all of the Tarzan films until the present time, even remembering outstanding episodes with Elmo Lincoln portraying the first screen Tarzan. Some of the films since then have been outstanding, while others were mediocre. And now we have Jock Mahoney, a former stunt man in countless movies of the action type, and recently portraying Yancy Derringer on TV. Not endowed by nature with bulging muscles such as Elmo Lincoln possessed, along with Johnny Weissmuller, and the last screen Tarzan, Gordon Scott, Jock is reminiscent to me of Herman Brix—Bruce Bennett—who was Edgar Rice Burroughs' personal choice to star in his Burroughs-Tarzan film production of "New Adventures of Tarzan".

Lean and sinewy, and at an age—42—when most actors, however active, would have scorned a role calling for physical stress as the screen Tarzans naturally do, Jock Mahoney accepted the challenge and performed magnificently—and let us fervently hope we may have the privilege of seeing him portray the part of the jungle lord again. So, in my mind, Jock has done well, and looks like a regular Tarzan.

And now for the revue of "Tarzan Goes to India".



A dying maharajah in India has summoned the ape-man from his native African jungles to come to India to try and spare the lives of a herd of some three hundred elephants who will be doomed to destruction by the construction of a dam, and the jungle in which they wander will be flooded so that farm lands might be irrigated.

The opening scenes show Tarzan parachuting from a plane into a large body of water and presently confers with the dying maharajah who is attended by his very lovely daughter, Kamara, played by

Simi. The jungle lord listens to the old maharajah's plea, and because of a friendship formed years before in the African jungles, he promises that in some way he will spare the elephant herd from doom.

The princess Kamara takes Tarzan in a jeep to the narrow mountain pass where countless native



workers are engaged in the duties of sealing it. O'Hara, the chief engineer in charge, played by Mark Dana, is a determined man to complete the work before the dreaded monsoon sets in. His assistant, Bryce, played by Leo Gordon, is as determined as his superior to carry the work on despite the deaths that occur to some of the native workers because of negligence in constructing stable supports. A young engineer apprentice, Rama, played by Feroz Khan, is in love with the princess Kamara.

Tarzan is told that the elephant herd is led by a powerful rogue elephant called Balloo and that he is defiant to all. The ape-man promises that he will spare the elephant herd without interfering with the work on the dam. The hardened Bryce scoffs at the jungle lord as he leaves to seek the herd and decide how he will spare them. He accidentally triggers a snare on the trail and is swung upward almost helplessly. And then we are introduced to Jai, the little elephant boy, who is responsible for Tarzan's present predicament, and with the little boy is Gajendra, a huge elephant, whom the little moppet commands.

Without too much delay, the ape-man frees his ankle and he and Jai become friendly. He passes the evening in the little boy's crude jungle hut. Tarzan learns Jai's father and mother are dead and he was alone in the world except for his elephant. The jungle lord literally adopts the little waif. In the morning when crossing a treacherous stream, Jai becomes frightened, but Tarzan takes command and directs the elephant to the opposite shore. Jai is angered that the jungle lord had done so, but he was consoled.

Meanwhile, the rogue elephant has been leading his herd on wild rampages through the construction camp. This naturally infuriates O'Hara. When Bryce with a couple of his men would have shot Balloo, Tarzan intervenes. The elephant is spared, but the ape-man is slugged from behind by one of Bryce's men. When he recovers consciousness, he



stories. In 1916, Mr. Chapman writes Mr. Ray Long, Editor of The Red Book Magazine, listing the newspapers to which the stories had been sold up to that time. The list includes:-

Tacoma Tribune  
Detroit Journal  
Chicago Herald  
Pittsburgh Leader  
Winnipeg News-Tribune  
Portland Journal  
Los Angeles Tribune  
New Orleans Times-Picayune  
New York Evening World  
Chicago Journal  
Dallas Journal  
Minneapolis News  
St. Paul News  
Omaha News  
Toledo Blade  
Wichita Eagle  
Milwaukee Leader  
Philadelphia Evening Ledger  
Scripps McRae League, which included  
some 7 Ohio newspapers

The one Canadian newspaper, listed above, would be of interest to Foreign collectors, at this time, as a Canadian publication of the Burroughs stories is difficult to find.

In 1916, McClurg sends a sales statement covering January 1 to April 30, 1916, showing 15,000 copies of "Tarzan of the Apes" at five (5) cents each or \$750.00 due on the sale of the book.

In December 1916, "Pellucidar" was for sale to The Philadelphia Evening Ledger for \$75.00.

An insight into Burroughs character and good humor can be found in a 1917 letter to Mr. Chapman concerning the first Tarzan movie, to quote: I GLEANED A GIGGLE FROM YOUR IRONIC EPISTLE OF JANUARY 22. THERE MUST BE ACID IN PRE-DIGESTED SAW DUST.

SURE! THEY PAID ME \$55,000. AND \$5,000. OF IT WAS IN PERFECTLY GOOD COIN OF THE REALM, THE BALANCE IN STOCK. ALSO, I AM TO GET 5% ON THE GROSS. IN A FEW MONTHS, I EXPECT TO BE WORTH SOME EIGHT OR ELEVEN MILLION DOLLARS, SO YOU BETTER BE NICE TO ME.

SERIOUSLY, IF PARSONS DOESN'T SPEND IT ALL IN HIS EXCITEMENT BEFORE HE PRODUCES, HE IS GOING TO TURN OUT ONE OF THE WORLD'S GREATEST FILMS. TARZAN WILL BE ONLY THE MEDIUM WHICH WILL CARRY THE MOST STUPENDOUS, WORLD STARTLING, EPOCH MAKING, DING-WIZZLED WILD ANIMAL PRODUCTION THAT EVER WAS OR EVER WILL BE.

A HERD OF FORTY (40) MAN-EATING LIONS, 3000 AFRICAN CANNIBALS WITH 2 N'S, ARABS IN WADS, LEOPARDS, HYENAS, WILD BOAR, ANTELOPE, DEER, BUFFALO, APES, GORILLAS, MONKEYS, SNAKES, MURDERS, MUTINIES, SHIPWRECKS, CAMELS, JUNGLES, ETC.

I THINK I HAVE ANSWERED ALL OF YOUR REMARKS.

SAY, THEY SOLD ONLY 30,000 COPIES OF TARZAN OF THE APES DURING THE SIX MONTHS ENDING DECEMBER 31, WHICH SEEMS PRETTY GOOD FOR THE THIRD YEAR OF SOMETHING WHAT AIN'T LITERATOOR. IF IT HAD BEEN, THE CHANCES ARE IT WOULD HAVE BEEN DEAD LONG SINCE.

Chapman writes in 1917 to Burroughs at 355 S. Hoover Street, Los Angeles, and returning two photoplay MSS and hoping he will land them. One can hardly help but wonder what these particular manuscripts could have been.

In 1918, Burroughs sends an autograph to Mr. Charles Gallup, of New York, saying: I HAVE NEVER SOLD MY SIGNATURE, NOR DO I EXPECT TO, and recommending a small donation be made to the Authors' League of America instead of any payment to himself.

In May of 1918, the Burroughs stationery shows his address as 700 Linden Avenue, Oak Park, Illinois, but he types in 1020 North Blvd., Chicago.

Early in 1920, the letterheads are "Tarzana Ranch", Ventura Boulevard at Reseda Ave., Van Nuys, California. At this time, Burroughs writes J. Allen St. John to praise his work and is worthy of quoting because of the collector's interest in St. John. He writes: I HAVE INTENDED WRITING YOU AFTER EACH NEW TARZAN BOOK APPEARED TO TELL YOU HOW MUCH I LIKED YOUR WORK. I UNDERSTAND THAT IT IS QUITE THE THING FOR AUTHORS TO REAR UP ON THEIR HIND LEGS AND TEAR THEIR HAIR WHEN THEY SEE HOW THE ILLUSTRATORS HAVE MUTILATED THEIR IDEAS AND CHARACTERS BUT, NOT BEING A REALLY LITERARY PERSON, I AM DENIED THE EMOTIONS OF THE ELECT.

AS A MATTER OF FACT, I THINK YOU VISUALIZED THE CHARACTERS AND SCENES PRECISELY AS I DID. IF I COULD DO THE SORT OF WORK YOU DO, I WOULD NOT CHANGE A LINE IN ANY OF THE DRAWINGS. I THINK YOUR WORK FOR TARZAN THE UNTAMED IS THE FINEST I HAVE EVER SEEN IN ANY BOOK. EACH PICTURE REFLECTS THE THOUGHT AND INTEREST AND LABOR THAT WERE EXPENDED UPON IT, AND SO I WISH NOT ONLY TO CONGRATULATE YOU BUT TO THANK YOU FOR HELPING TO MAKE A BOOK WHICH WOULD SELL ON THE STRENGTH OF THE ILLUSTRATIONS ALONE, REGARDLESS OF THE TEXT.

Along this same line, he again writes Mr. St. John in August of 1922: JUST TO TELL YOU HOW DELIGHTED I AM WITH THE ILLUSTRATIONS IN AT THE EARTH'S CORE. I INTENDED WRITING YOU AT THE TIME THE MUCKER CAME OUT TO TELL YOU HOW MUCH I LIKED THE ILLUSTRATIONS YOU MADE FOR THAT VOLUME, BUT LET ME DO SO NOW. THE BIGGEST KICK I GET OUT OF MY NEW BOOKS COMES FROM YOUR DRAWINGS, AND I HOPE NOTHING EVER OCCURS TO BREAK THE COMBINATION WHICH HAS NOW ENDURED FOR QUITE A FEW YEARS AND WHICH I HOPE IS AS PLEASANT TO YOU AS IT IS TO ME.

Again, in December of 1922, Mr. Burroughs writes Mr. Sparks, of A.C. McClurg, thanking him for a Chessman post card, and again praises Mr. St. John as follows: I RECEIVED MY TWELVE (12) COPIES LAST WEEK. AS USUAL, I AM MORE THAN PLEASED WITH THE APPEARANCE OF THE VOLUME AND WITH ST. JOHN'S WONDERFUL ILLUSTRATIONS. I WONDER IF HE IS APPRECIATED IN ACCORDANCE WITH HIS DESERTS. WHILE I KNOW LITTLE OR NOTHING ABOUT ARTISTIC TECHNIQUE AND AM, THEREFORE, IN NO POSITION TO CRITICIZE HIS WORK FROM AN ARTISTIC STANDPOINT, I, NEVERTHELESS, AM CONVINCED THAT THERE IS NO GREATER AMERICAN ILLUSTRATOR THAN ST. JOHN. HIS PICTURES PERFECTLY REFLECT THE SPIRIT OF THE TEXT AND CONSTITUTE, IN THEMSELVES, A STORY OF ABSORBING INTEREST.

AS A MATTER OF FACT, I LOOK FORWARD TO EACH NEW BOOK OF MINE ALMOST SOLELY FOR THE PLEASURE OF STUDYING ST. JOHN'S PICTURES.

In December of 1926, we find a letter addressed to Gordon Dorrance, of Dorrance & Company, Inc. of Philadelphia, of which is worth quoting from two points of view—the first, Mr. Burroughs' opinion of the movie, then in production, of "Tarzan and the Golden Lion" and, secondly, because of his reference to James Pierce, who was later to become his son-in-law. IT PLEASES ME GREATLY TO KNOW THAT YOU ENJOY MY MARTIAN AND

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# A Scholarly Analysis of the Females of Barsoom

by JOHN HARWOOD and H. W. STARR

When John Carter first landed on Mars he lived with the green men of that planet for several months. These gruesome inhabitants of the dead sea bottoms were to Jasoomian eyes, singularly repulsive creatures. As John Carter says:

"They seemed mostly head, with little scrawny bodies, long necks and six legs, or, as I afterward learned, two legs and two arms with an intermediary pair of limbs which could be used at will either as arms or legs. Their eyes were set at the extreme sides of their heads a trifle above the center and protruded in such a manner that they could be directed either forward or back and also independently of each other, thus permitting this queer animal to look in any direction, or in two directions at once, without the necessity of turning the head.

"The ears, which were slightly above the eyes and closer together, were small, cup-shaped antennae; protruding not more than an inch on these small specimens. Their noses were but longitudinal slits in the center of their faces, midway between their mouths and ears.

"There was no hair on their bodies, which were of a very light yellowish-green color. In the adults, as I was to learn quite soon, this color deepens to an olive green and is darker in the male than in the female. Further, the heads of the adults are not so out of proportion to their bodies as in the case of the young.

"The iris of the eyes is blood red, as in Albinos, while the pupil is dark. The eyeball itself is very white, as are the teeth. These latter add a most ferocious appearance, as the lower tusks curve upward to sharp points, which end about where the eyes of earthly human beings are located. The whiteness of the teeth is not that of ivory, but of the snowiest and most gleaming of china. Against the dark background of their olive skins their tusks stand out in a most striking manner, making these weapons present a singularly formidable appearance.

"The man himself, for such I may call him, was fully fifteen feet in height and, on earth, would have weighed some four hundred pounds.

"With the exception of their ornaments all were naked. The women varied in appearance but little from the men, except that their tusks were much larger in proportion to their height, in some instances curving nearly to their high-set ears. Their bodies were smaller and lighter in color, and their fingers and toes bore the rudiments of nails, which were entirely lacking among the males. The adult females ranged in height from ten to twelve feet."

From such a description of the females of Mars first seen by John Carter, it would seem that there would be little chance of romance between an Earthman and a Martian girl—that is, if the Earthman was in his right mind. In addition to their repulsive appearance, Carter was soon to learn that they differed from the women of Earth in still another way. The Martian women were oviparous—they produced their offspring by the laying of eggs. Each green Martian woman produced, every year, thirteen eggs of about the size of a goose egg. These eggs were inspected by a council and all but a hundred of the most perfect each year were destroyed.

The perfect eggs were stored in a secret vault where the temperature was too low for incubation. At the end of five years the five hundred perfect eggs were placed in an incubator in some remote spot where they were left for an incubation period of five years. During this period the eggs grow larger until, when they are about to hatch, they have increased to approximately two and a half feet in diameter. When the young hatch out they are between three and four feet in height, miniature replicas of the adults. After they are hatched they are taken in hand by the women and taught the language and the use of weapons.

It wasn't until he met Dejah Thoris that John Carter realized that there were people on Mars more like his own race. He describes Dejah Thoris as follows:

"And the sight that met my eyes was that of a slender, girlish figure, similar in every detail to the earthly women of my past life. She did not see me at first, but just as she was disappearing through the portal of the building which was to be her prison she turned, and her eyes met mine. Her face was oval and beautiful in the extreme, her every feature was finely chiseled and exquisite, her eyes large and lustrous and her head surmounted by a mass of coal black, waving hair, caught loosely into a strange yet becoming coiffure. Her skin was of a light reddish copper color, against which the crimson glow of her cheeks and the ruby of her beautifully molded lips shone with a strangely enhancing effect.

"She was destitute of clothes as was the green Martians who accompanied her; indeed, save for her highly wrought ornaments she was entirely naked, nor could any apparel have enhanced the beauty of her perfect and symmetrical figure."

This was more like it—a chance of romance on a strange planet with a girl of his own kind. Later he was to learn that the women of the red



"It was a banth—the great, maned lion of Barsoom"

P. J. Monahan's visualization of Tara of Helium in a scene from "The Chessmen of Mars". A careful study of the work of all the artists who have pictured Barsoonian females reveals that the majority picture them with bosoms and, in many cases, navel.

race as well as those of the other human races, white, black and yellow, were also oviparous. However, for some strange reason, this didn't prevent the fruitful mating of John Carter of Earth and Dejah Thoris of Barsoom, for at the end of the first book in the series we learn that they have an egg about to hatch. The night the egg hatched, John Carter was called to the atmosphere plant to save all of Mars. He "died", returned to Earth, and didn't get back to Mars for ten years. At that time he met Carthoris and learned that the boy was his son. It does seem strange that a ten year old boy (five years by Martian figuring) would be such an accomplished swordsman at such an early age, but ERB tells us in one of the books that a man of Barsoom wears a sword almost as soon as he breaks the shell. As we know, the green men can run about as soon as they emerge from the shell—so why not the red men as well?

All right. So Dejah Thoris can lay eggs. And Carthoris can become an accomplished swordsman at the age of five (Martian) years. However, there's one discrepancy that isn't usually noticed by the readers. To emphasize the point, let's take another look at the description of the Princess of Helium:

"a slender, girlish figure, similar in every detail to the earthly women of my past life."

And:

"she was entirely naked, nor could any apparel have enhanced the beauty of her perfect and symmetrical figure."

Now what's wrong with that? Not too different from other descriptions of girls in other books. However, don't forget: The females of Mars reproduce by laying eggs. ERB tells us that there is only one mammal on the planet and that is very rare. Therefore the people of Mars aren't mammals as are the inhabitants of Earth.

There are three main differences between mammals and other types of creatures: (a) They are warm blooded. (b) They usually have some type of hair or fur. (c) The females produce milk.

- (a) The main difference between warm-bloodedness in mammals and reptiles is the fact that the mammals have a sort of a built-in heat control system. The reptiles (and other cold-blooded creatures) depend on the temperature of their environment to control the warmth of their blood. Thus, on a warm day a reptile's blood has a fairly warm temperature while on a cold day its blood has a lower temperature. As a reptile's blood heat is the same temperature as its environment, it feels cool to the touch of a human. If a reptile gets too hot it dies. If it gets too cold it also dies. As the outside temperature gets cooler the reptile becomes more sluggish. Usually in winter the reptile crawls into a hole below the frost line and spends the winter in a dormant state.

In contrast, the warm-blooded mammals have special heat controls that allow them to stand hotter and cooler temperatures than the cold-blooded creatures. When it gets too hot for a mammal, it starts sweating. This sweat (or perspiration to be more delicate) absorbs some of the surplus heat from the blood before it emerges from the sweat glands onto the surface

of the skin. Not only does the sweat absorb the heat from the blood, but in addition, the act of evaporation causes a cooling effect to the skin.

On the other hand, when it gets cold certain nerves cause the skin to contract, closing up the pores and thus keeping the heat from the blood within the body. By this automatic release of heat in warm weather and retaining of heat in cold weather the temperature of the body is kept constant.

We have seen in the Mars books that the Yellow Men of Mars live in the north polar region. If they were reptilian in descent they would be sluggish in the freezing temperatures of their climate but when we read of them sword fighting in the snow we can see that they are anything but sluggish. Of course, they wear heavy furs of the apt and orluk but this doesn't prove that they aren't warm-blooded. After all, the people of Earth who live in cold countries wear heavy clothing in winter.

There are some instances that prove the human races of Barsoom have sweat glands.

In THE CHESSMEN OF MARS (p. 343) we read of O-Tar, the jeddak of Manator, proving his courage to his warriors by going alone to the haunted chamber of the long-dead O-Mai. ERB mentions that as O-Tar waited at the door of the fearful chamber his heart stood still and his forehead was covered with a cold sweat.

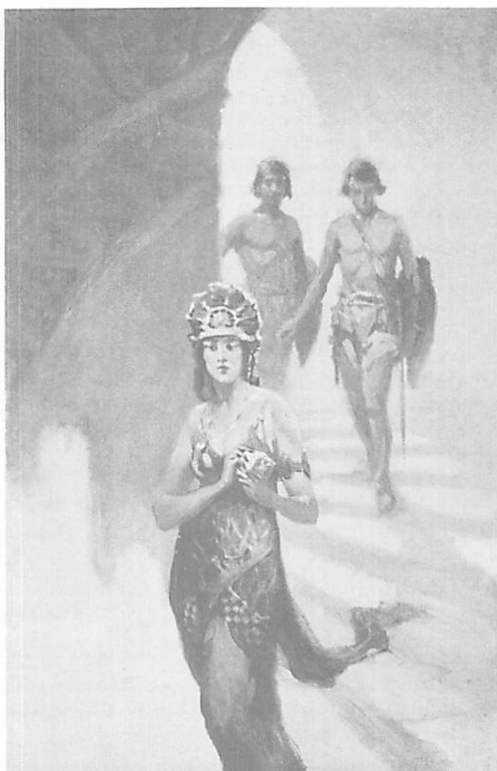
During John Carter's fight with Motus in LLANA OF GATHOL (p. 292) we find that the Warlord has given his foe such a bad time that his body was covered with sweat.

- (b) The human races on Mars (red, white, black and yellow) all have hair on their heads. An exception to this is provided by the male Therns, who are bald. The other white races of the planet, such as the Orovans and Lotharians have hair. In addition, the yellow men are heavily bearded, and many of the animals of Barsoom have fur, especially the apt and orluk, which are noted for their heavy furs used by the yellow men for protection against the cold of the north polar regions.
- (c) In Carter's description of Dejah Thoris he says that she is naked and the beauty of her "perfect and symmetrical figure" is similar "in every detail to the earthly women of my past life." Consequently, she must have had breasts. Had she proudly presented the frontal development of a plaster wall it would have taken a certain aesthetic adjustment for John Carter to have fallen in love with her! The same goes for Ulysses Paxton, another Earthman. Earthmen have been known to notice such things.

ERB doesn't go in for more detailed information on Dejah Thoris' figure than mentioned above. After all, this was back in 1912 and his description was probably rather daring for that day. The writer of today, of course, would take up several paragraphs or even pages with a detailed description that amounted to virtually a verbal photograph.

Although the author didn't actually mention the fact that the Princess of Helium had breasts, there are other descriptions which indicate that the females of Barsoom weren't exactly as flat-chested as a frog.

In THE WARLORD OF MARS reference is made to Dejah Thoris' "panting bosom". However, this is a word that can mean either the chest—that region of the body that covers the ribs—or the mammary glands of a woman. Thus, this isn't a definite clue to the female Martian's frontal equipment.



"The Princess Comes! Dejah Thoris!  
The Princess Comes!"

However, when Vad Varo (Ulysses S. Paxton) revives Valla Dia in the body of the ancient Xaxa in THE MASTER MIND OF MARS, he observes that: "the breasts rose and fell regularly." Later, when he performed the operation that returned her to her own body he "saw the color mount to her cheeks and her rounded bosoms rise and fall to her gentle breathing."

ERB also mentions Tara's "small, firm breasts" (THE CHESSMEN OF MARS) and Tavia's "rounded contours" and "that perfect breast." (A FIGHTING MAN OF MARS)

So it would seem that in addition to laying eggs, the female of Barsoom also produces milk. A sort of butter and egg woman....

Well, why not? The women of Mars were females, so why shouldn't they be built like females. But mammals don't usually lay eggs; and birds, reptiles, fish, and other egg-laying creatures don't have breasts, for animals that come from eggs usually can feed themselves. It is the mammals that depend so greatly on their mothers for food during their earliest life, and the mammary glands of the mothers furnish milk to keep them alive until they can partake of more solid food.

If the red Martian can hold a sword almost from the moment he first breaks the shell, why should he need to be milk-fed? The picture conjured up is a striking one: A mother nurses her baby—and a moment later junior leaves for his fencing lesson—from breast to blade in five minutes!

Of course, it may be possible that when the Barsoomians first break the shell they are toothless and have to live on milk for the first few weeks of their lives until they grow their teeth. Still, one does wonder.

In any event, since there is only one mammal on Mars and it is very rare indeed, it stands to reason that the human races aren't true mammals, for ERB says the humans are numbered in the millions. What does this leave? In earthly terms, other egg layers include birds, fish, reptiles, amphibians—and one other very small group of "near-mammals". Is it possible that the Martian humans represent a similar transition between some egg-laying type of animal and the mammal? It seems very likely. If so, we can come to one conclusion.

Dejah Thoris is the Barsoomian equivalent of the Australian duckbilled platypus.

#### AMBIGUOUS UMBILICALS

Someone is always taking the joy out of life.

We spent practically the whole Summer of 1961 discussing the subject of the foregoing article. After searching through all the Mars books for references to Barsoomian breasts, we find that Dave Prosser has to come up with his interesting portfolio of some of the heroines created by ERB. When these were published in the #13 BURROUGHS BULLETIN, the sharp eye of Thomas S. Gardner discovered that Dejah Thoris and Thuvia were well equipped with breasts and, according to the sketches, navels. This in spite of the fact that the Barsoomians are oviparous. In other words, although the women of Barsoom lay eggs, these illustrations of Dave's show them sporting mammalian adornments. Should we scrap the article at this late date or try to add a word of explanation?

The readers will note that we have taken up the subject of the mammaries of Mars but we never thought about the belly buttons of Barsoom.

We even went so far as to indicate references to sweat glands and hair as mammalian characteristics in creatures that came from eggs. We did hold a sort of navel conference by mail but came to the conclusion that neither of us had any recollection that ERB ever mentioned navels in the Mars books.

Yet might we, by a long stretching of our imaginations, make a case for navels?

An egg usually consists of three parts: the yolk, the white, and the shell. The most important part is the yolk, which holds the food supply for the growing animal. Isn't it possible that the connection between the yolk of a Barsoomian egg and the creature that is developing would be in the region of the navel? Well, why not? Just because the animals that come from eggs on Earth don't have navels is no reason why the case has to be true for Barsoomian life forms.

Of course, there is another possibility. Maybe the Martians do not have navels. As we have remarked above, we cannot recall a single reference to them in all the Mars books. The assumption that they did have them would have to rest on John Carter's observation, on first meeting his future spouse, that she looked exactly like earthly women. He could observe this because she was, save for metal or-

(continued on page 27)



# TARZAN COUNT-DOWN

by  
RUSS MANNING

There may be a Tarzan fan somewhere who has no particular favorites among the various interpretations of the ape-man—but he isn't seated at THIS typewriter. A Tarzan movie, or comic strip, or illustration that "just ain't the ape-man" causes me as much anguish as seeing my own name misspelled.

As to so many others, to me Tarzan EXISTS. Now, I don't think that I, or anyone else, could go to a tree-house in Tanganyika right now and shake his hand—I mean that he has a separate, distinct, and completely defined world all his own, and no matter what happens in Tshombe's Congo, or how many housing developments they throw up in Kenya, Tarzan's Africa will not be much harmed or altered. But a poor drawing, or a poorly done movie, will eventually ruin him.

So far we've been lucky. There have been enough fine interpretations to outweigh the incompetents, and the Jungle Lord still lives. But we've all been too inclined to tolerate the bad and merely adequate renditions, and I believe we should become more critical. A good solid base of constructive criticism almost always produces a better product.

Here, then, is my countdown of the various interpreters whose work I have seen, from those mighty talents that have done so much to make the ape-man REAL, to those who have almost killed the legend.

First must come Burroughs' Tarzan. Yep—BURROUGHS' Tarzan. As I've stated elsewhere, if ERB hadn't created Tarzan, someone else would have. A folk hero was crying to be born—an animal-man raised by animals, who with only his bare hands and his animal friends can handle any situation anywhere on earth—and Edgar Rice Burroughs got the call. The idea has been tried before and since, but nowhere is the image so universal, so powerfully compelling, and so simply understandable. So Burroughs' Tarzan stands first—perfect, unimprovable—and all since have been either interpretations or copies.

Of all the VISUAL Tarzans, Hal Foster's rates highest, both as fine art, and because it comes closest to Burroughs' description of the ape-man. It is Foster's conception of Tarzan—the lion or leopard skin trunks; the shape of head, hair and features; and the mature, capable, manly figure that seems to hit exactly the universal image that comes with the thought of an ape-man, and all successful renditions of animal-men since have followed his lead. Among the one or two other visual Tarzans that come close to Foster's for "rightness" was Johnny Weissmuller's portrayal (of which more later) and since the movies and the comic strip both produced their greatest Tarzan at the same time (the early 30's) I'm uncertain to what extent each influenced the other. I do believe I detect a strong influence of Tom Mix in the way Foster drew Tarzan's face.

Tarzan was lucky. Foster is one of the finest storytellers and illustrators of our time, and the Jungle Lord he drew is perfectly believable, in a jungle better than real-life ones. His Great Apes are completely bestial, yet somehow near-human.

In this respect the movies have always failed, usually miserably. The better films must omit the Great Apes entirely, and one of the several reasons that the comic strip is a better Tarzan vehicle—and Hal Foster drew the greatest Tarzan in comics.

Of the Tarzan movies, only the earliest and best of those starring Johnny W. can compare with

Foster's Tarzan. Foster, in the comic strip format, had the advantage of being able to depict anything that Burroughs could describe—but the movies had the incredible Johnny W., with his perfect ape-man head, half civilized, half throw-back.

Two Johnny W. movies, TARZAN THE APE MAN, and TARZAN AND HIS MATE, with their wonderfully pagan stories and better than real-life sets, are almost outside Burroughs and competing with him, they are that great. But since they are at least based on ERB's creation, they must inevitably only follow him.

Next comes a very hard choice. Three artists, each of whom illustrated enough of Tarzan for us to be sure what the Jungle Lord meant to him, and each is distinctly different. They are Jesse Marsh, Hogarth and J. Allen St. John. Jesse comes closest to Burroughs and the universal Tarzan, Hogarth blasts us with a strong forceful image, and St. John shows us an unique Tarzan.

Jesse Marsh's Tarzan is a massive monolithic figure more primeval Gro-magnon than English lord, as if the boy's early environment overshadowed his heritage and imprinted more of the animal on the man. Though Jesse has suffered from bad scripts more than any other of the illustrators, his fine sense of design and story-telling have made the Tarzan comic book stand out in quality among all the others on the stands. In fifteen years, Jesse has illustrated almost every Tarzan story in over 150 comic books. He may well have drawn more Tarzans than all the others COMBINED!

Hogarth's Tarzan seems to wander away from Burroughs. Dynamic, strong, visually exciting and full of superbly drawn action, still Hogarth's drawings are too stylized in a manner that never seems real. Of the two or three really well drawn Tarzans, his seems the furthest from having an actual existence. Here I do not refer to realism, or the world we live in—neither Foster nor Marsh are slavish realists, but are rather CREATIVE, their drawings creating a complete, believable world. Hogarth's drawing is so powerful and interesting that his images stick forcibly in our mind, but Foster and Marsh come closer to the ape-man that Burroughs gave us.

St. John's Tarzan is a romantic in the 19th century tradition. Fanciful, imaginative, and not of this world, we'd feel an undefined something missing if St. John had never drawn the ape-man. He put the fantasy, the other-worldliness into Tarzan that everyone else missed, except the master, Burroughs. To St. John's illustrations goes the mind's eye for what the ant men look like, or the earth's core, or any of the off-beat touches so much a part of the legend. His style was perhaps too much of the 1920's, while Tarzan is timeless, but how we would miss each magnificent frontispiece if he had never painted them.

Next I would lump all of the Tarzan movies, except those mentioned earlier. Then back to the comic strip—and if the ape-man had depended upon Maxon, Rubimor, Barry, Lubbers and Celardo to keep life in him, he'd have been long gone. The original books and the films must have sustained him while the above worked on the strip.

Maxon never seemed to clean up his drawings—Tarzan had a harder time swinging through all the black ink smudges than he did through the foliage. Rubimor's Tarzan was an attenuated, sickly neurotic in a fetid atmosphere.

Barry was just too young, or inexperienced. His David Innes is a callow fellow and his Tarzan a poor copy of Hogarth. He's done much better since on the daily Flash Gordon.

Lubbers rushed it.

Celardo, too, suffered from terrible scripts—and his drawing is stiff and unimaginative.

None of these latter illustrators and movie makers seemed to realize that Tarzan is that inspiring, perfection-demanding creation—a folk hero. Only the very best will suffice to keep

(continued on page 27)

# Burroughs Bibliophile

## Al Howard

I should not talk so much about myself if there were any body else whom I knew as well.

—Henry D. Thoreau

By the time you read this, subject will probably be in the neighborhood of 48, which puts him, in the words of one V. Coriell, squarely in "the twilight zone". Since he doesn't look a day over 47, subject attributes this youthful appearance to his kinship to John Carter. His cousin is married to a man by that name.

Subject dimly remembers attending Saturday matinee movies, circa 1922, where Elmo Lincoln did his stuff as Tarzan in a weekly serial. He found this type of adventure, and Elmo to be even more thrilling than Eddie Polo, Ruth Roland, and Sessue Hayakawa.

Some few years later subject was a confirmed Tom Swift addict, and thought him tops until a relative passed on a copy of "Tarzan of the Apes". This turned out to be one of those occasional binder's abortions, where a whole section is inadvertently omitted, and where, in apparent compensation for this error, another section is repeated. (Collector's Item?) Many years passed before subject found out what happened between D'Arnot's rescue from the village of M'bonga, and Tarzan's sudden appearance in Wisconsin, just minutes ahead of a forest fire. As time went on, subject managed to get hold of Burt editions of "Son", and "Jewels", reading them through many times. The day finally came, when, with his own money he proudly bought a brand new G&D "Ant Men" (55 cents).

Somewhere along here subject visited a friend in the country and started to read friend's copy of "Gods". Incredibly, he did not like it, not getting much beyond the Foreword. A year later, much more mature, he had another go at it, and suddenly realized that he was reading about doings on Another World! This was the real dawn of "the sense of wonder".

The discovery of Pellucidar followed along shortly thereafter, and subject was definitely hooked. Edgar Rice Burroughs took first place in his private pantheon of demi-gods.

WEIRD TALES and AMAZING STORIES were discovered in 1927, and subject was agreeably pleased to find "Time Forgot" and "Mastermind" in the latter publication, thus confirming his groping conviction that weird and science fiction had something in common with Burroughs. To this day, he isn't sure just what it is, but it exists.

For many years the reading of fantasy was more-or-less a solitary vice, for although he had met several creeps who read the stuff, these encounters did nothing to encourage subject to actively seek out others. Indeed, he was extremely wary about admitting to his reading aberration. It wasn't until 1947 when subject met Sam Moskowitz, and through him the Eastern Science Fiction Ass'n of Newark, N.J., that he learned that fantasy fans were fairly normal beans after all. Not long after this, in answer to a letter in FFM subject wrote to Vernell Coriell, requesting a copy of the BB.

This led to a fairly irregular correspondence, culminating some ten years later in a meeting one raw, dismal day on the rain-swept ocean end of Steel Pier in Atlantic City. Driven by the elements, the pair withdrew to the nearest bar,

which was speedily turned into an amphitheater for the mysterious rites of the Dum-dum.

Subject lives in Newark, where he works in the electrical department of a large plastics company. Is married, and has a son, who is only a lukewarm ERB fan. Has been an officer of the ESFA, on-and-off for about twelve years. In addition to Coriell, has carried on an occasional correspondence with John Harwood, Bob Hyde, and the late Alfred Guillory. Has had the pleasure of visits by Coriell and Hyde in Newark. Subject attended the organizational meeting of the Bibliophiles in Pittsburgh, and regrets to say he missed seeing the fabulous Hyde collection, due to a severe case of convention fatigue.

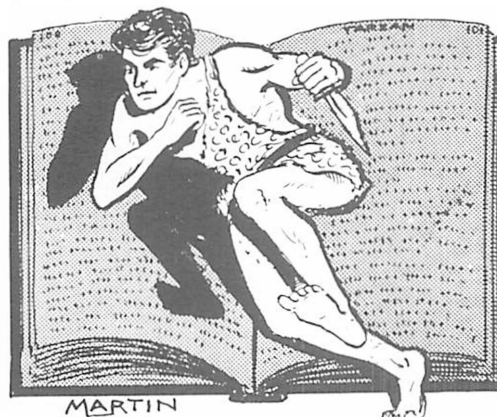


Allan Howard scans a copy of his favorite fanzine... the Burroughs Bulletin, natch!

In spite of a long-standing loyalty to Tarzan, the Mars books are subject's favorite series, although "Time Forgot" is his favorite individual book. The Pellucidar series is of special interest, combining some of the jungle atmosphere of Tarzan with the other-worldly civilizations, and back-water communities typical of Barsoom. Subject never entirely warmed up to Carson Napier, since he is a comparative Johnny-come-lately. Best remembered line from the Writings is, "Food! Food! There is a way out!" Can take Tarzan movies and comics, or leave them alone.

It may be, like John Harwood, subject is a minnow among whales in the Bibliophiles. His collection consists mostly of one copy of each of the Gospels, and not all of them firsts. Like Harwood he is more interested in The Word, than a large collection, but must confess to some envy of the big collectors.

However, "bibliophile" means "book-lover", and I sure do love them Burroughs books!



**"Tarzan of the Apes"**

**ARA:** the lightning, in the language of the great apes.

**ARROW:** a sailing vessel, chartered by Professor Porter for treasure hunting expedition, and which later fell into the hands of mutineers.

**BARA:** generic ape term for most species of horned ungulates—usually thought of collectively as "deer" by Tarzan.

**BILL:** one of ARROW mutineers.

**BILLINGS, CAPT.:** master of sailing ship, FUWALDA, whose brutality and stupidity brought on the mutiny.

**BLACK MICHAEL:** leader of FUWALDA mutineers, who saved lives of Claytons in return for previous kindness.



**BOLGANI:** ape term for gorilla, also applied to any specific gorilla.

**CANLER, ROBERT:** suitor of Jane Porter, from whom Prof. Porter borrowed money to finance treasure hunt.

**CHARPENTIER, LT.:** officer on rescuing French cruiser.

**CLAYTON, JOHN:** family and given name of Tarzan of the Apes, and also name of his father, son, and grandson.

**CLAYTON, WILLIAM CECIL:** cousin of Tarzan, who also loved Jane Porter, and honestly thought himself to be heir apparent of the Greystoke title.

**CONSTANTINE, FR.:** French mission priest, who aided Tarzan and D'Arnot in their trek out of the jungle.

**DANGO:** ape term for hyena.

**D'ARNOT, LT. PAUL:** officer on rescuing French cruiser, who was captured by cannibals and rescued by Tarzan, and who is Tarzan's closest friend.

**DESQUERC, MONS.:** Fingerprint expert who proved Tarzan to be Greystoke.

**DUFARANNE, CAPT.:** commander of rescuing French cruiser.

**DUM-DUM:** Dance of Death, ceremonial rites of the great apes.

**ESMERALDA:** Jane Porter's "black mammy", and maid.

**FUWALDA:** barkentine chartered by Lord Greystoke to bear him and Lady Alice from Freetown to West Africa, which was taken over by mutineers.

**GREYSTOKE, LORD:** hereditary title of the Clayton line, a viscountcy that apparently goes back at least to the 13th century, and the reign of Henry III.

**GUNTO:** ape of the tribe of Kerchak, and a wife-biter.

**HISTAH:** generic ape term for all species of serpents.

**HORTA:** ape term for boar, quite possibly applied indiscriminately to all members of porcine family, and regardless of sex.

**JANVIERS, SUB-LT.:** officer on rescuing French cruiser.

**KA-GODA:** "Do you surrender?" in the ape tongue, as well as it's assenting answer, "I surrender."

**KALA:** ape of the tribe of Kerchak and foster mother of Tarzan.

**KERCHAK:** leader of the tribe of apes into which Tarzan, to whom he eventually lost his kingship, was adopted.

**KING:** former leader of ARROW mutineers, murdered by Snipes.

**KULONGA:** son of Mbonga, and slayer of Kala.

**MANU:** ape term for monkey, which would seem to include the chimpanzee.

**MBONGA:** chief of native village near Tarzan's boyhood home.

**MIRANDO:** warrior of the tribe of Mbonga, who had the misfortune to have possessions coveted by Tarzan.

**MUNANGO-KEEWATI:** name given to Tarzan by the tribe of Mbonga, meaning "Forest God", or "Forest Demon".

**MUNGO:** ape of the tribe of Kerchak, who stole Thaka's wife.

**NEETA:** boyhood ape playmate of Tarzan who came to an untimely end by drowning. Also means "bird" in ape language.

**NUMA:** ape term for lions in general, as well as a particular lion.

PAMBA: ape term for rat, and possibly other small mammals.

PETER: ARROW mutineer.

PHILANDER, SAMUEL T.: secretary, assistant, and old friend of Prof. Porter.

PISAH: generic ape term for fish.

PORTER, PROF. ARCHIMEDES Q.: father of Jane Porter.

PORTER, JANE, Lady Greystoke, Tarzan's mate.

RUTHERFORD, HON. ALICE: maiden name of Tarzan's mother.

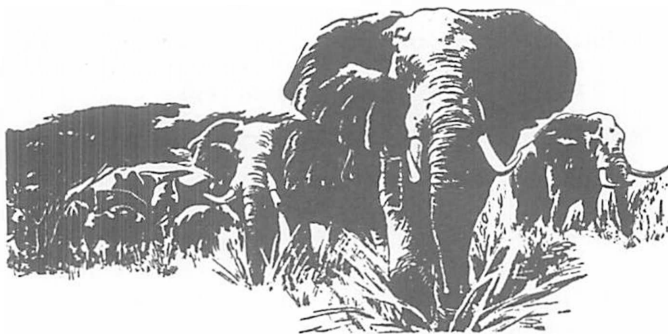
SHEETA: ape term for leopard.

SABOR: ape term for lioness.

SNIPES: leading mutineer on ship, ARROW.

STRONG, HAZEL: Baltimore, Md., friend of Jane Porter.

TANA: female ape of the tribe of Kerchak, who was bitten by her husband, Gunto.



TANTOR: ape term for elephant, also apparently a particular elephant who is Tarzan's favorite steed.

TARRANT: ARROW mutineer, and murderer of Snipes.



By the time Tarzan—the name the apes had given him which meant "White Skin"—was ten years old, he was an excellent climber and could do many wonderful things. He was fully as strong as the average man of thirty. And then he began to realize that a great difference existed between himself and his fellows.

In the higher land that the tribe frequented was a little lake. Here it was that Tarzan first saw his face in the clear, still waters of its bosom. He was appalled! He turned red with shame as he compared his face and naked body with his more fortunate brother's.

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TARZAN: "white-skin" in language of the apes. Name given to infant Lord Greystoke by the tribe of Kerchak. Tarzan of the Apes, Lord of the Jungle.



TARZAN, MONS.: alias used by Tarzan during his first contacts with civilization.

TERKOZ: ape of the tribe of Kerchak, son of Tublat who kidnapped Jane Porter and was killed by Tarzan.

THAKA: ape of the tribe of Kerchak, whose wife was stolen by Mungo.

TOBEY: apparently a man-of-all-work attached to Prof. Porter.

TOM: ARROW mutineer.

TOUSLEY, REV. MR.: clergyman who came to marry Jane Porter to Robert Canler, and who left in terror.



TUBLAT: "broken nose" in language of apes—mate of Kala, and implacable enemy of Tarzan.

This series by Al Howard and John Harwood will appear in the BB until ERB's entire works has been covered. It will then be revised and published in book form.



It is inevitable that a reader of the Mars tales should wonder whether or not they hang together upon close examination, particularly in the absence of maps. Some time back, I began to study this deficiency with a mind toward providing myself with a graphic guide to the stories, and now after effort I have a result at hand. I say A result because there might be a more nearly correct solution. I am gratified to state that in many respects things check. Of course there are some bits of information which can not be reconciled. These spots can be attributed to several factors, the most probable being the unromantic one that when ERB began these fantasies he had no idea of the extent to which they would eventually be carried. However, for the sake of fancy, let's blame it on static and the Gridley wave. Hence we have such confusions as Helium lies 1,000 miles s.w. of Zodanga (Book 1, P.279) and Helium lies 1,900 miles w. of Zodanga. (8-15) Incidentally, this can not be explained by a differentiation between haads and miles.

To get the best results in case of conflicting information, the last given is accepted, unless it conflicts with several earlier statements, in which case it is assumed to be a misprint.

I met with several beguiling circumstances which had to be overcome by interpolation, not the least of which were the following: Both Horz and Exum are given as Barsoomian Greenwich (4-250 and 10-16 respectively) and it can be positively proved that Horz and Exum do not lie on the same meridian, simply by calculating distances given and seeing that to place them on the same meridian i.e. the prime meridian, would place other cities at improper distances from each other, and would in some cases even put them in the wrong hemisphere.

I have come to this conclusion. Horz is always described as being the seat of ancient culture. Dusar, Gathol and Aanthor are all described as being at such and such a latitude and so many degrees east or west of Horz. That means, obviously, so many degrees east or west of the Meridian on which Horz is found. I have therefore assumed that in ancient times Horz was used to locate the THEN prime meridian. Later, for some reason, calculations of longitude were made from another spot, the intersection of the new prime meridian and Polodona (equator) being called Exum.

Therefore I began by marking an arbitrary meridian the meridian of Horz, placing Dusar, Gathol and Aanthor accordingly and working from them until I found the location of some city (Helium) from which I could determine actual latitudes.

At first glance the most damaging bit of evidence against my conclusions is the mention of the place 30 S lat. - 172 E. long. (8-15) But look at the passage closely. In the first place it is ambiguous and the location COULD refer to either Helium or Zodanga. (from the standpoint of technical English) Logically, it could not be Helium because Ptarth is far n.e. of Helium (4-94) and yet Ptarth is in the N.E. hemisphere. (4-158) If we consider it as the location of Zodanga and place Helium 1,900 miles west, then other positions on the map do not check. (Nor would they check if we used haads rather than miles) But, let us examine the possibility that it is an error in proof reading and that the figure should read 72 instead of 172. That would place Helium just a trifle over 1 degree from where it should be placed undisputably, using the calculations inferred in 10-16. (Go N.W. from Helium and cross equator 1,600 miles East of Exum.)

1,600 miles equals 4,365 haads, which at the equator equals 43 degrees and some odd minutes. And in going N.W. from 30 degrees S. lat., one crosses the equator 30 degrees W. of where one began. Add these and one finds that according to 10-16, Helium lies 73 degrees and odd minutes E. of Exum, the prime meridian, or at exactly 30 S. lat. - 73 E. long. Not only does this check closely with the assumed misprint mentioned above, but it checks with the position of Helium as determined independently by calculations from Horz by way of Aanthor, Torquas, etc.

One is bound to allow the calculator to assume misprints because of their undeniable existence, for example, Jhama to Jahar 4,000 haads; (7-176) the same, 2,500 haads. (7-194) Actually these are few in number and should not discourage the student. Among the others are 9-243. Phundahl should read Toonol, and from p.242 to the end, Pandar should read Gan Had (See p.198 etc.) Also in Book 10, on p.9, N.W. should read N.E. (See 4-94 and 6-119)

In checking my procedure you will find that in the ten volumes there are some clues to topography, distance, time, method and direction of travel; sometimes in terms of miles, sometimes in terms of haads, involving speeds of fast and slow fliers, large and small thoats, walking speed of Carthoris against that of ordinary Barsoomians, drifting in dead fliers, and too there are numerous definite statements of relative positions of cities.

ERB's numerical translations of miles into haads are conflicting and must be disregarded, but he does provide an exact formula by which haads and miles may be determined (4-94) where he states that 100 haads equals one karad, or one degree of a Barsoomian Great Circle, and one assumes for purposes of this computation, that Barsoom is a perfect sphere, though of course it is not quite.

Any earthly astronomy will give you the diameter of Mars and you can begin from there, constructing tables of haads/degrees at various latitudes on Barsoom, and tables of oblique travel, (N.E. etc.) in terms of haads. These later tables may be constructed by spherical trig. From then on it is a matter of cross-indexing clues, double checking where possible, and interpolating when necessary.

The answers of course are found in terms of latitudes and longitudes. I point out that other answers to some locations could be arrived at, but that those shown seem to me to fulfil best the propositions of the books. Remember that on a flat rectangular map of a sphere with lat. and long. on the square, only direct N-S and equatorial distances are to scale with each other; also, direct E-W distances at similar latitudes N. or S. are to scale with each other. Since 0 latitude represents the equator, and 90 N. or S. represents a point, the latitudes from 0 to 90 are scaled on a cosine curve where 0 degrees equals 1, 60 degrees equals  $\frac{1}{2}$ , and 90 degrees equals 0. In other words, 1 inch on the map at the equator covers the same distance in haads that is covered by 2 inches on the map at 60 degrees, and so forth. (If you are familiar with math, I apologize for this explanation)

Some of the inferences taken are involved, and yet they seem reasonable. Detailed explanations of all the findings would require a volume, but to provide an example, let us use the location of the Carrion Caves.

We have located Helium. We are told that Kaol is located almost half way around the planet E.

of Helium and on the equator. (3-86) We know that Kaol and Helium are both in the eastern hemisphere. (4-158) Therefore we must place Kaol on the map near the extreme end of the Eastern Hemisphere and we see that it checks as being somewhere S of Ptarth. (3-109 and 137)

From Kaol, the flier of John Carter and Thuva Dihn went due N. to the ice barrier. (3-139) We assume that the N. ice barrier is located N. of 80 degrees to conform with the S. ice barrier which is S. of 80 degrees S. lat. (1-69 gives location of Thark which is of course N. of the S. ice barrier) Therefore, at random, we place the N. barrier at around 85 degrees, to keep the cold countries from being too small to conform with the story.

To walk around the barrier would take about a month. (3-142) To walk to the caves took only 5 days. (3-142) Five days is one-sixth of a month. One-sixth of a circle is 60 degrees. Therefore the Carrion Caves must be 60 degrees from due N. of Kaol. In which direction? Obviously in the direction which will make it farthest from Pankor, because Pankor is an arctic city with fliers,

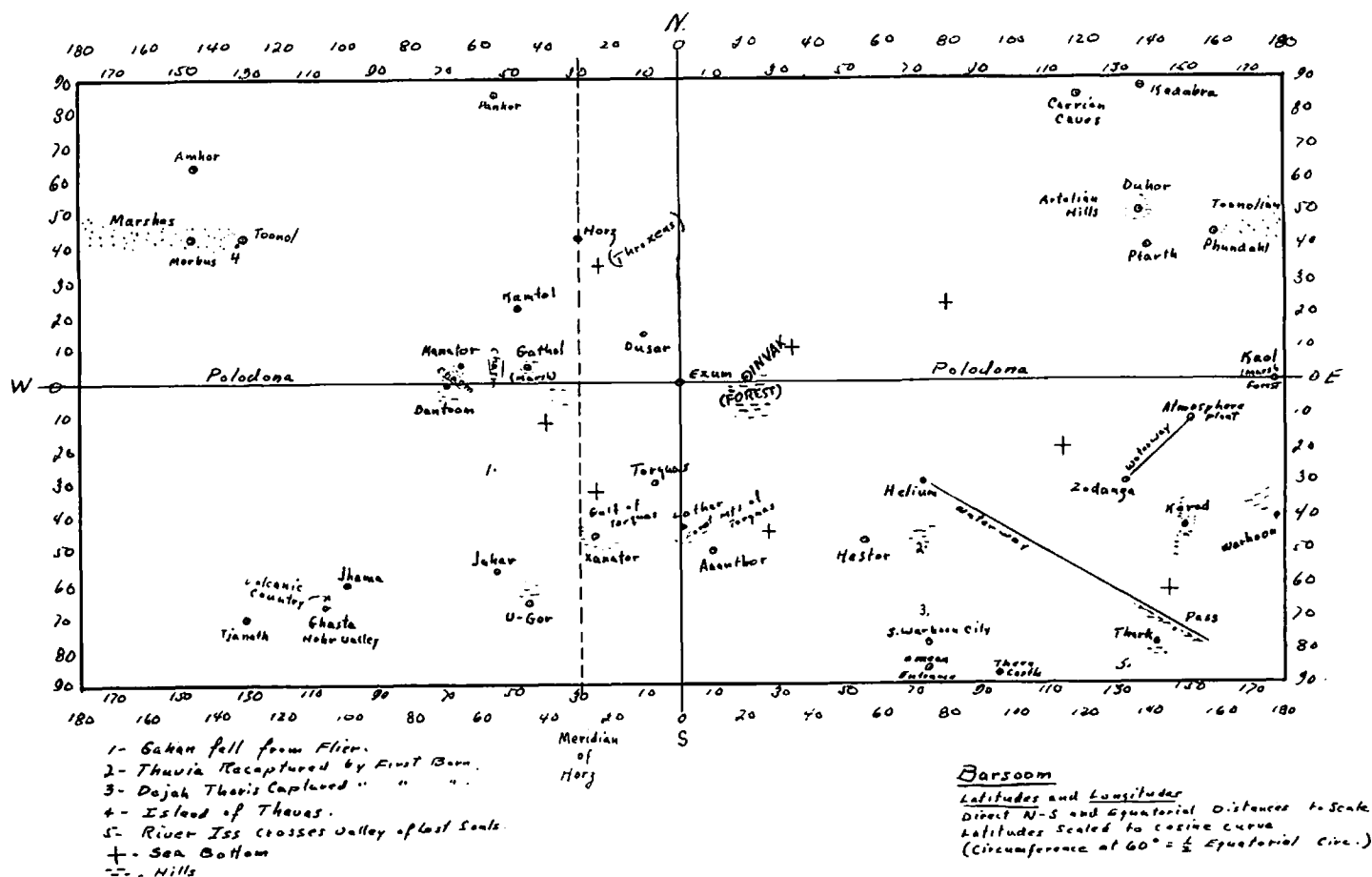
but which were not trapped by the Guardian of the North, the Great Magnet. And that was at Kadabra which is near the caves.

We know the location of Pankor. (10-206 and 245) Therefore we place the caves 60 degrees W. of due N. of Kaol, which places Kadabra and the caves half way around the barrier from Pankor, which is just right for answering the proposition.

The southern cold countries can not be shown on the present map because of their compactness and circular outline which would show merely as stripes at the bottom of the map, one for Korus, the Otz Mountains, the Valley of Lost Souls, the S. Ice Barrier—all S. of 80 degrees.

The unusual geographic conditions of Barsroom and the absence of evidence of Great Circle sailing in their navigation is a study for another student. I do not ponder these things, I accept what I find.

I hope that you will find the map useful in your reading.



R.H. Schlutter '48

The above map and data re Barsroom is part of a letter from Robert H. Schlutter, dated June 4, 1948. It was not intended for publication at that time because the BB was still being mimeographed and by the time it went offset, the BB mailing list was so large and the cost of publishing was becoming so prohibitive that the BB almost ended up in that limbo where all dead fanzines go. Now, with the backing of the Burroughs Bibliophiles, it is financially possible for BB to present to its readers many of the fine

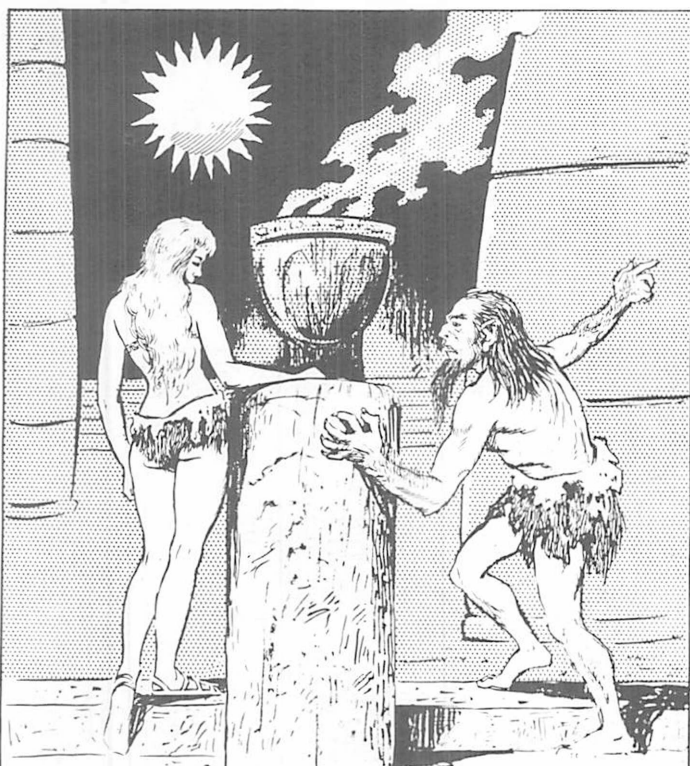
articles from the backlog in our files as well as new articles. When we received Frank Brueckel's excellent study of Barsroom last year, we were anxious to publish it, but it seemed unfair that Schlutter's map might not see print so we decided to go the route on Barsroomian geography in this issue. Hope you have fun comparing these and forthcoming maps of Barsroom and that it all results in a final and accurate chart of the red planet.



EDGAR RICE BURROUGHS'  
**TARZAN** AND THE CROCODILE GOD  
WRITTEN & ILLUSTRATED BY TEX LOWELL



Opar, lost and lying in ruins, was colonized by Atlantis 8,000 years ago. Eventually the city fell into the cruel hands of a degenerate race of beast-men, sub-human creatures who often sacrificed captives to their sun god. Few outsiders ever visited the evil city and survived. One of the few was Tarzan.



THE BEAUTIFUL LA, GOLDEN-HAIRED HIGH PRIESTESS OF OPAR, LIVED IN THE TEMPLE OF THE FLAMING GOD, A VIRTUAL PRISONER OF THE MONSTROUS BEAST MEN. HER HEART WAS FILLED WITH LONGING TO GO TO THE ONE MAN SHE LOVED: TARZAN, THE JUNGLE LORD. A BEAST-MAN, KROG, OFFERED TO AID HER.



...AND SO IT WAS, ONE DARK NIGHT, THAT LA DISGUISED HERSELF IN RUDE FURS AND VANISHED FROM THE TEMPLE.



KROG LED THE PRIESTESS THROUGH A SERIES OF DANK, TWISTED PASSAGES.



AFTER SEVERAL HOURS THEY EMERGED GRATEFULLY INTO THE SUNLIGHT.

"FREE! FREE  
AT LAST!"

"TAKE CARE!  
WE ARE STILL  
IN GREAT  
DANGER!"



THEY HAD PROGRESSED BUT A SHORT WAY INTO THE JUNGLE WHEN KROG, WITH A CRY OF PAIN, TOPPLED FORWARD...



AN INSTANT LATER A GROUP OF WEIRDLY GARBED SOLDIERS APPEARED FROM ALL SIDES! DRAWING HER DAGGER, LA SCREAMED.



TARZAN, ENJOYING A BRIEF RESPITE FROM THE PROBLEMS OF MANAGING HIS VAST ESTATE, PAUSED AS HIS KEEN SENSES DETECTED THE DISTANT SOUNDS OF DANGER.



MEANTIME THE STRANGE MARAUDERS CARRIED THE VALIANT GIRL INTO THE JUNGLE FASTNESS!

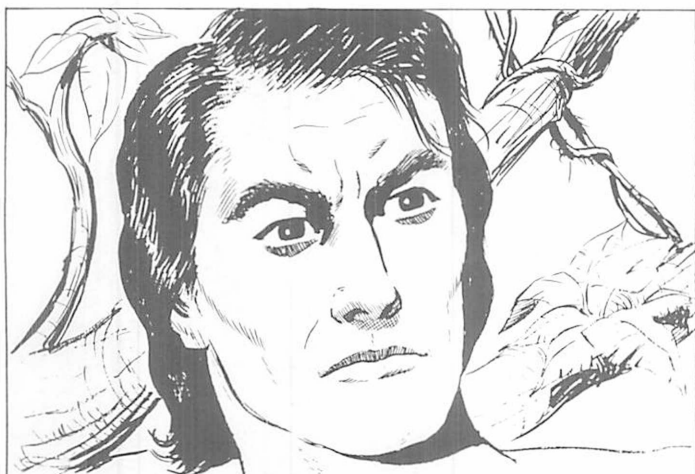




THE APE-MAN'S JUNGLE INSTINCTS LED HIM UNERRINGLY TO THE SCENE OF THE STRUGGLE.



THE DYING KROG LIVED JUST LONG ENOUGH TO GASP OUT:  
*"LA... CROCODILE MEN... SAVE HER..."*



TARZAN HAD HEARD TALES OF "CROCODILE MEN", FANATICAL WORSHIPPERS OF THE ANCIENT EGYPTIAN DIETY, *SEBEK*, GOD OF EVIL, WHOSE LUST FOR HUMAN SACRIFICE HAD LED TO THEIR EXILE TWO THOUSAND YEARS AGO.



THE JUNGLE LORD HAD NO DIFFICULTY FOLLOWING THE MARAUDERS' TRAIL. SOON HE ENTERED A PART OF THE JUNGLE UNKNOWN EVEN TO HIM.



AT LAST THE TRAIL LED TO A JAGGED MOUNTAIN, FRONTED BY TWO MAMMOTH STONE COLOSSI OF SEBEK. ORNATE STAIRS, EONS OLD, LED INTO THE HEART OF THE MOUNTAIN!



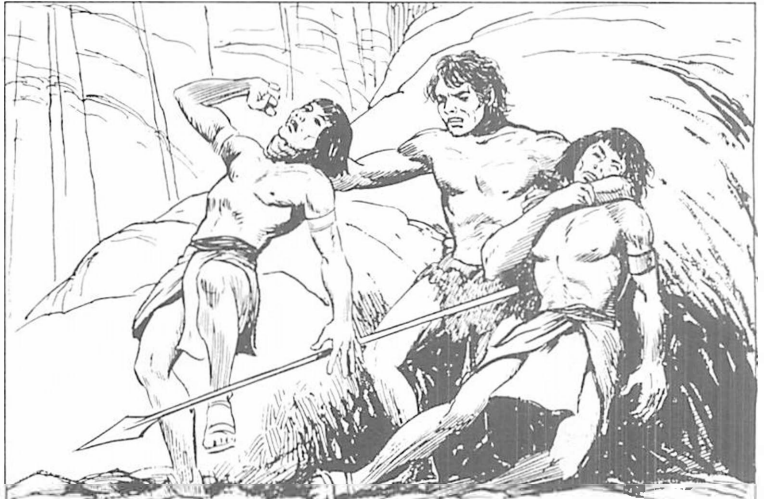


WITHOUT HESITATION TARZAN LEAPT TO THE STAIRS, KNOWING WELL THAT CERTAIN DEATH AWAITED THOSE WHO ENTERED THIS FORBIDDEN LAND.



THE APE-MAN'S EVERY MOVE WAS OBSERVED, AND A PRIMITIVE BUT EFFECTIVE TRAP WAS MADE READY.....

THE MAN-MADE AVALANCHE OF BOULDERS HURTLIED DOWN TOWARD THE INTRUDER, BUT THE NIMBLE TARZAN FOUND REFUGE IN A SHALLOW CREVICE.



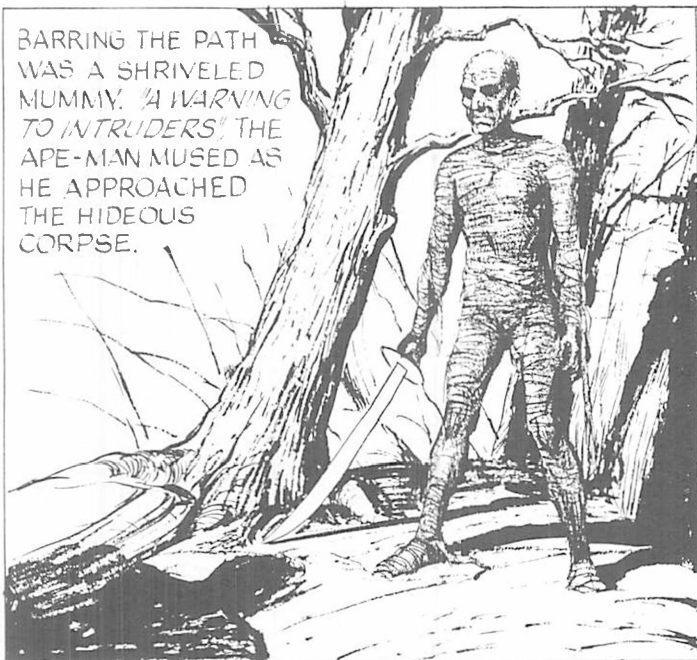
AS THE CROCODILE MEN EXULTED IN THEIR VICTORY, THE APE-MAN CLIMBED UNSEEN UP THE SHEER FACE OF THE PRECIPICE. CATCHING THE GUARDS UNAWARES, THE JUNGLE LORD MADE SHORT WORK OF THEM!

TARZAN RESUMED HIS JOURNEY, ALERT TO EVERY DANGER. AS HE NEARED HIS GOAL HE ENCOUNTERED A VERY STRANGE OBSTACLE.....

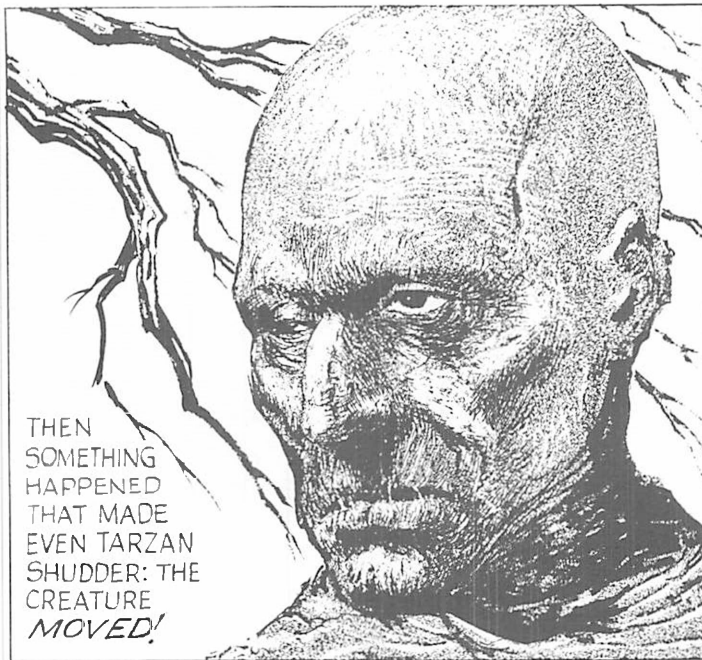




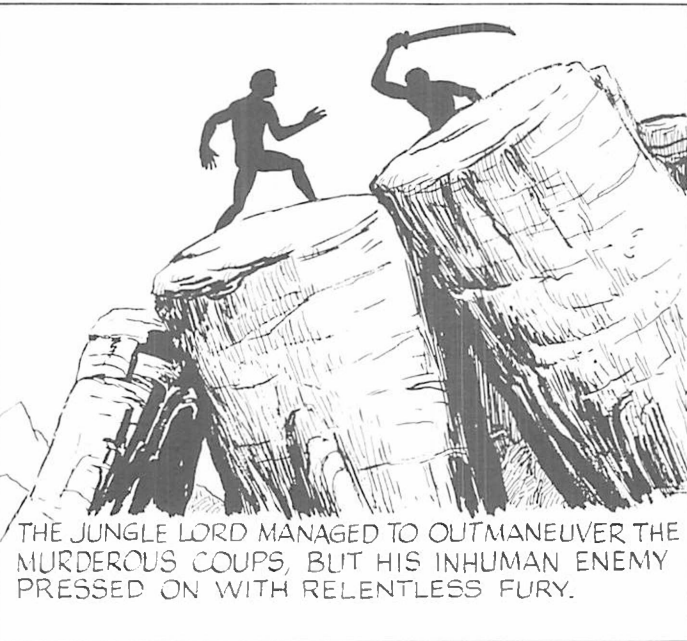
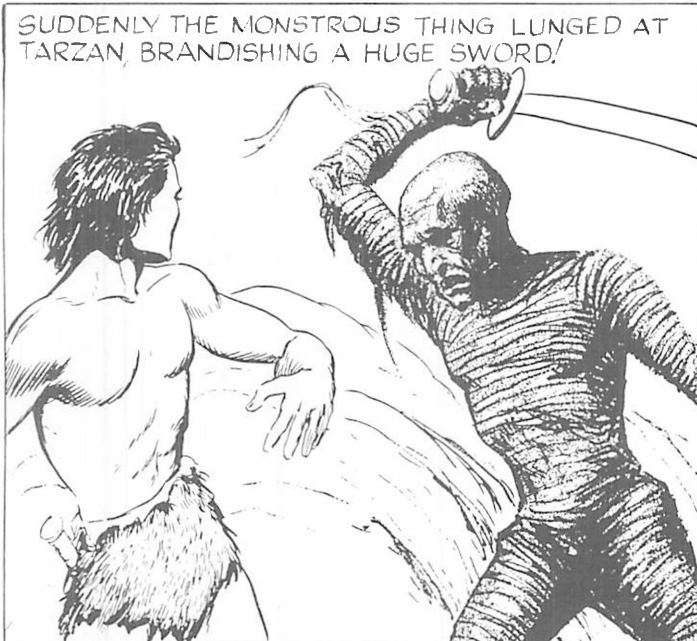
BARRING THE PATH WAS A SHRIVELED MUMMY. "A WARNING TO INTRUDERS," THE APE-MAN MUSED AS HE APPROACHED THE HIDEOUS CORPSE.



THEN SOMETHING HAPPENED THAT MADE EVEN TARZAN SHUDDER: THE CREATURE MOVED!

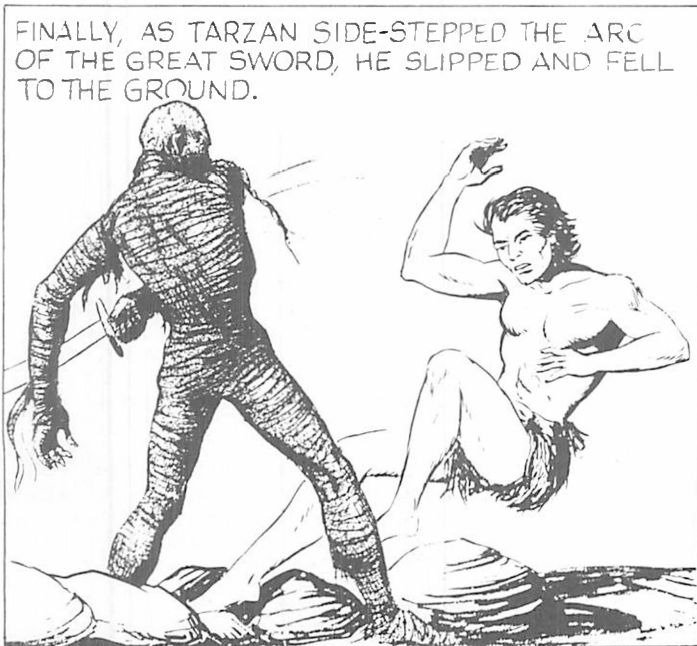


SUDDENLY THE MONSTROUS THING LUNGED AT TARZAN, BRANDISHING A HUGE SWORD!

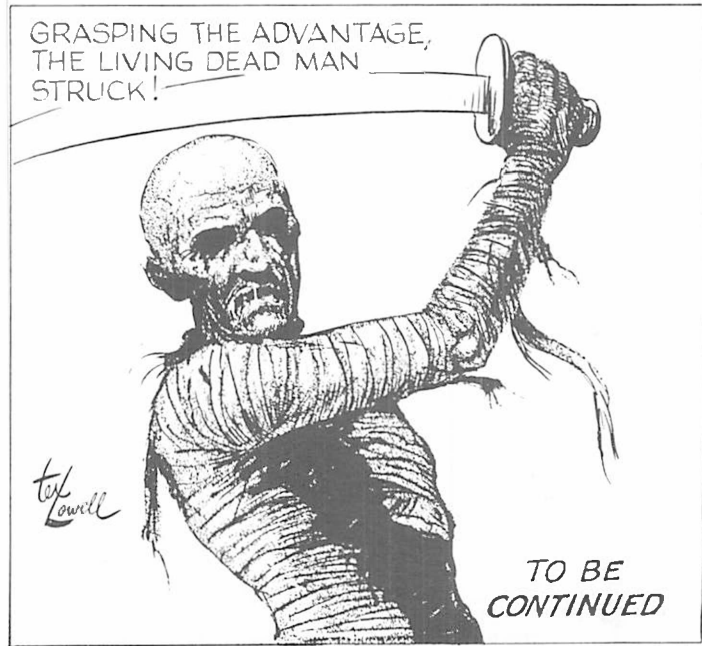


THE JUNGLE LORD MANAGED TO OUTMANEUVER THE MURDEROUS COUPS, BUT HIS INHUMAN ENEMY PRESSED ON WITH RELENTLESS FURY.

FINALLY, AS TARZAN SIDE-STEPPED THE ARC OF THE GREAT SWORD, HE SLIPPED AND FELL TO THE GROUND.



GRASPING THE ADVANTAGE, THE LIVING DEAD MAN STRUCK!



Tex  
Lowell

TO BE  
CONTINUED

Eternally  
Yours:

Edgar Rice

Burroughs

by

GENE

HERTENSTEIN



"Nu, the son of Nu, his mighty muscles rolling beneath his smooth bronzed skin, moved silently through the jungle primeval. His handsome head with its shock of black hair, roughly cropped between sharpened stones, was high held, the delicate nostrils questioning each vagrant breeze for the word of Oo, hunter of men."

The opening paragraph of THE ETERNAL LOVER gives us a broad hint as to the general content of the book. The name "Nu" is the perfection of primitive simplicity. And of course, we expect a weird and wonderful tale from the Past from the Old Master and the first few pages assure us of just that.

And then suddenly Burroughs pulls the rug from under us with the startling statement. "That was a hundred thousand years ago." Now we all have a fairly complete picture of Nu by now. Very Tarzan-like in appearance, ERB would have us believe, and seemingly of above average intelligence.

Let's go back a hundred thousand years and see just what kind of man roamed the primitive jungles of earth. Now according to several orthodox scientists of noteworthy fame the Neanderthal flourished between 100,000 and 30,000 years ago.

The Neanderthal, however, was not the handsome young giant that was Nu of the Niocene. The skull formation of the Neanderthal is quite a bit more ape than human. He ranged in height from about 5 to 5½ feet, but the thigh bones were curved in such a way as to indicate that he did not walk erect as does modern man. The lower jaw was heavy and all but chinless. The shoulders and arms were strong and the hands powerful.

The Neanderthal, however, clubbed his mate and other enemies in prehistoric Europe, but Nu of the Niocene was found near Lord Greystoke's fabulous African estate. Africa itself has become a vast land of research in the past few years. Robert W. Hegner offers this statement:

"Certain discoveries of prehistoric man in Africa are regarded by some anthropologists as being very significant. A fossil skull has been found near Taungs, South Africa, that is said to be intermediate between a higher ape and man. This so-called ape man was named Australopithecus africanus. Other fossil remains of high primates found recently in South Africa are known as Plesianthropus transvaalensis, Paranthropus robustus, and Paranthropus crassidens. The exact relationships of these fossil primates to modern man is

still disputed. However, there appears to be some evidence that they are more primitive than Pithecanthropus (this no new word to any ERB fan) which, if true, pushes back the origin of man one step further."

While all this provides an excellent "out" for the Pithecanthropus of TARZAN THE TERRIBLE, I fear it has little bearing upon Nu of the Niocene.

I am inclined to believe that Nu's people were just a shade above the stage of the Pithecanthropus, giving them somewhat the general appearance and intelligence of the Neanderthal. Quite a few of Burroughs' statements point to this. Nu and his people lived approximately 100,000 years ago (Chapter I, page fourteen\*). Nu is constantly referred to as "the troglodyte" meaning, "Cave Dweller or anthropoid ape." On page 6 you will find the first of many references to Nu's semi-arboreal habits, which indicates his kind was not long out of the trees.

However, there are exceptions to the strictest rules. Perhaps Nu was a rare "mutation" or exception. According to Darwin's theory of Evolution (of which I am positive Burroughs was a staunch supporter) we are all mutants, in a sense. Every generation a hint higher than the previous one.

Nu, perhaps, was a rare case; almost homo-sapien in physical appearance and intelligence: Or so Burroughs depicted him. Of course it is possible.

But what of Nat-ul? Did she look like an ape? No, it is not likely that Barney Custer's "slim and graceful" sister was anything close to an anthropoid. Then she, too, must have been a rare exception. Come now, Edgar R.! Isn't that stretching things a bit?

Until now, I have purposely ignored Niocene other than to identify Nu, since I believe that this is wholly a product of the author's fertile imagination and has absolutely no bearing upon any actual era or land location.

Burroughs rarely sticks close to facts. For example:

The giant reptiles on page six that flew "with the flutter of their mighty bat-like wings..." I am assuming ERB meant pterodactyl, or pterodon, since those were about the only flying reptiles about. Both became extinct with the close of the Jurassic period, ages before the appearance of man.

And the sabre-tooth! Burroughs enlarged the fellow some two or three times! The skin of a sabre-tooth was a yellowish-tan, not striped like a bengal tiger. The largest fanged creature I can recall was the Tyrannosaurus Rex, whose fangs, at most were not over eight inches, and to my knowledge was the largest fangs found in the skull of a sabre-tooth measured about six inches.

However, I suppose under the code of the "Literary license" unofficially possessed by every writer, Burroughs was wise to do this since it did make for an exciting yarn. Unfortunately, ERB built Nu's prowess to such great extent that it somehow seemed to dwarf Tarzan's brief appearance which I do not believe is good.

It is interesting to note the difference of this book from anything to which Burroughs has ever dipped a pen. Although it reads with the familiar breath-taking pace that could only be Burroughs, somehow this novel stands out and

\* All page references are in accordance to the Grosset & Dunlap edition of THE ETERNAL LOVER.



# The Oakdale Affair

## A Complete Novelette

by Edgar Rice Burroughs

Illustration

by

Dom J. Lavin



The  
Concluding Scenes  
of  
THE OAKDALE AFFAIR

With thanks to Stanleigh B. Vinson  
for lending us this "jewel" from  
his collection

This, of course, is not "A Complete Novelette" as mentioned above, but I thought it would be fun to reproduce the heading illustration for the March 1918 Blue Book magazine version of THE OAKDALE AFFAIR to accompany this reprinting of the concluding lines of THE OAKDALE AFFAIR that appeared in the magazine version of the story but were not included in the book version. I do not know the reasons why ERB omitted the following from the book version, but I found a couple of answers in the magazine version's ending of the plot where the book version left me with a "wot hoppend" feeling. Some of the following wordage is repeated in the book, but, for the most part, it will be "new" to fans who have not read the magazine version. I might add that there is a "damn" or two in the book version (page 166, for instance) that the Editor must have "cut" from Blue Book...so the real completist must have both versions in his collection.

END OF THE ROAD TO ANYWHERE by Edgar Rice Burroughs

Bridge shook his head. "I am sorry, Dick," he said in a very low tone; "but one kind word spoken at the right time would have saved him twenty thousand dollars and both of us years of sorrow and regret."

Jonas Prim hurried his daughter through the crowd and to the car. Burton stood looking at his old friend. "What are you going to do?" he asked.

Bridge shook his head wearily. "I'm afraid it's too late, old man," he said. "The open road has gotten into my blood, and there's only one thing that could take its place; and that's not for me now—not for a bum and a bo." And his eyes wandered toward the slim figure sitting so straight and proud in the rear seat of the car.

But suddenly the little head was turned in his direction, "Hurry, Bridge," admonished the Oskaloosa Kid. "You're going home with us."

(The book version ends here, but the Blue Book magazine continues with the following)

The man stepped toward the car, shaking his head, "Oh, no, Miss Prim," he said, "I can't do that. Here's your 'swag.'" And he smiled as he passed over her jewels and money.

Mr. Prim's eyes widened; he looked suspiciously at Bridge. Abigail laughed merrily. "I stole them myself, Dad," she explained, "and then Mr. Bridge took them from me in the jail to make the mob think he had stolen them and not I—he didn't know then that I was a girl, did you?"

"It was in the jail that I first guessed; but I didn't quite realize who you were until you said that the jewels were yours—then I knew. The picture in the paper gave me the first inkling that you were a girl, for you looked so much like the one of Miss Prim. Then I commenced to recall little things, until I wondered that I hadn't known from the first that you were a girl; but you made a bully boy!" and they both laughed. "And now good-by, and may God bless you!" His voice trembled ever so little, and he extended his hand. The girl drew back.

"I want you to come with us," she said. "I want Father to know you and to know how you have cared for me. Wont you come—for me?"

"I couldn't refuse, if you put it that way," replied Bridge; and he climbed into the car. As the machine started off a boy leaped to the running-board.

"Hey!" he yelled, "where's my reward? I want my reward. I'm Willie Case."

"Oh!" exclaimed Bridge. "I gave your reward to your father—maybe he'll split it with you. Go ask him." And the car moved off.

"You see," said Burton, with a wry smile, "how simple is the detective's job. Willie is a natural-born detective. He got everything wrong from A to Izzard, yet if it hadn't been for Willie we might not have cleared up the mystery so soon."

"It isn't all cleared up yet," said Jonas Prim. "Who murdered Baggs?"

"Two yeggs known as Dopey Charlie and the General," replied Burton. "They are in jail at Oakdale; but they don't know yet that I know they are guilty. They think they are being held merely as suspects in the case of your daughter's disappearance, whereas I have known since morning that they were implicated in the killing of Baggs; for after I got them in the car I went behind the bushes where we discovered them and dug up everything that was missing from Baggs' house, as nearly as is known—currency, gold and bonds."

"Good!" exclaimed Mr. Prim.

On the trip back to Oakdale, Abigail Prim cuddled in the back seat beside her father, told him all that she could think to tell of Bridge and his goodness to her.

"But the man didn't know you were a girl," suggested M. Prim.

"There were two other girls with us, both very pretty," replied Abigail, "and he was as courteous and kindly to them as a man could be to a woman. I don't care anything about his clothes, Daddy; Bridge is a gentleman born and raised—anyone could tell it after half an hour with him."

Bridge sat on the front seat with the driver and one of Burton's men, while Burton, sitting in the back seat next to the girl, could not but overhear her conversation.

"You are right," he said. "Bridge, as you call him, is a gentleman. He comes from one of the



finest families of Virginia and one of the wealthiest. You need have no hesitancy, Mr. Prim, in inviting him into your home."

For a while the three sat in silence; and then Jonas Prim turned to his daughter. "Gail," he said, "before we get home I wish you'd tell me why you did this thing. I think you'd rather tell me before we see Mrs. P."

"It was Sam Benham, Daddy," whispered the girl. "I couldn't marry him. I'd rather die, and so I ran away. I was going to be a tramp; but I had no idea a tramp's existence was so adventurous. You won't make me marry him, Daddy, will you? I wouldn't be happy, Daddy."

"I should say not, Gail; you can be an old maid all your life if you want to."

"But I don't want to—I only want to choose my own husband," replied Abigail.

Mrs. Prim met them all in the living-room. At sight of Abigail in the ill-fitting man's clothing she raised her hands in holy horror; but she couldn't see Bridge at all, until Burton found an opportunity to draw her to one side and whisper something in her ear, after which she was graciousness personified to the dusky Bridge, insisting that he spend a fortnight with them to recuperate.

Between them, Burton and Jonas Prim fitted Bridge out as he had not been dressed in years, and with the feel of fresh linen and pressed clothing, even if ill fitting, a sensation of comfort and ease pervaded him which the man would not have thought possible from such a source an hour before.

He smiled ruefully as Burton looked him over. "I venture to say," he drawled, "that there are other things in the world besides the open road."

Burton smiled.

It was midnight when the Primms and their guests arose from the table. Nettie Penning was with them, and everyone present had been sworn to secrecy about her share in the tragedy of the previous night. On the morrow she would return to Payson and no one there the wiser; but first she had Burton send to the jail for Giova, who was being held as a witness, and Giova promised to come and work for the Penningss.

At last Bridge stole a few minutes alone with Abigail, or, to be more strictly a truthful historian, Abigail outgeneraled the others of the company and drew Bridge out upon the veranda.

"Tell me," demanded the girl, "why you were so kind to me when you thought me a worthless little scamp of a boy who had robbed some one's home."

I couldn't have told you a few hours ago," said Bridge. "I used to wonder myself why I should feel toward a boy as I felt toward you,—it was inexplicable,—and then when I knew that you were a girl, I understood, for I knew that I loved you and had loved you from the moment that we met there in the dark and the rain beside the Road to Anywhere."

"Isn't it wonderful?" murmured the girl, and she had other things in her heart to murmur; but a man's lips smothered hers as Bridge gathered her into his arms and strained her to him.

above any of his other works.

In especially exciting scenes Burroughs switches the narrative from past to present tense adding stark realism to the action: A stroke of genius that only a master like Edgar Rice Burroughs could use successfully. It puzzles me why he never used this technique again.

In his commendable "Golden Anniversary of Edgar Rice Burroughs", Reverend Heins points out the close relationship of this book to the Tarzan series. As further example of this, on page sixty-nine: "When he (Victoria's Arab captor) found that she was a guest of Lord Greystoke an ugly grin crossed his evil face, for the fellow recalled what had befallen another Arab slave and ivory caravan at the hands of the Englishman and his Waziri warriors."

No doubt, this reference is a flashback to chapter twenty-six of THE RETURN OF TARZAN.

Burroughs concocted an entirely new (or perhaps I should say 'Nu') vocabulary for the animals of the world of the Miocene. Never before have I seen him deal with a single non-series novel with such careful consideration. As we complete the book, we are familiar with Zor, the lion, Ta, the woolley rhinoceros, Oo, the sabre-tooth, and Gluh, the mammoth.

You'll note that on page thirty-nine "she insisted Mr. Curtiss accompany the other men", but on page seventy-one "behind Custer came Curtig."

Tarzan of the Apes was referred to as the ape man, instead of the customary hyphenated ape-man.

Reincarnation is an old Burroughs theme with which we are all familiar. How many times have we seen his god-like hero smile bravely at his princess (and it is always a princess) and whis-

per, "Good-bye, my princess. Perhaps we shall meet again in another incarnation."

A figure of speech? No, I don't think so. Nor do I think Burroughs believed in reincarnation. But I think he would have liked to. ERB hated death. He hated it as no man ever has. How he taunted it and defied it in his stories. How he would have liked to do the same in real life!

The following paragraph is the plainest, most undisguised, most vivid satire of death he has ever written:

"To you it has been but a few days since you left your Mat-ul to hunt down the ferocious Oo; but in reality countless ages have rolled by. By some strange freak of fate you have remained unchanged during all these ages until now you step forth from your long sleep an unspoiled cave man of the stone age into the midst of the twentieth century, while I, doubtless, have been born and reborn a thousand times, merging from one incarnation to another until in this we are again united. Had you, too, died and been born again during all these weary years no gap of ages would intervene between us now and we should meet again upon a common footing as do other souls, and mate and die to be born again to a new mating and a new life with its inevitable death....you have refused to die and now that we meet again a hundred thousand years lie between us...."

This is a typical Burroughs fantasy; death defied. How he wished it might be done! And how do we know that it cannot? Perhaps in the next century another writer shall arise from the depths of the earth and take the place of one Edgar Rice Burroughs and Burroughs himself, as we have known him, will be cast aside in the light of this new blaze of glory as the world worships this new and fabulous writer who may be...after all....

Edgar Rice Burroughs...  
one and the same.

# FETALLES OF BARSOOM (continued from page twelve)

naments, almost completely undressed. Now he couldn't have failed to notice the absence of breasts (anyway, we have found specific references to those), but a navel is a different matter. Martian women (red) usually carried a knife: this must have been supported by a belt around the waist. Although Dejah Thoris would have been disarmed by the Tharks, they probably wouldn't have bothered to remove the belt, and the latter very likely would cover the navel area. Hence, it would never occur to John Carter that she was "navelless"—and here he was recording the impression of that particular moment. Naturally, upon further and more intimate acquaintance he would have observed that she was lacking one feature which he had expected, but he right well have decided not suddenly to digress in the final chapter and remark chattily, "Oh, by the way, later on I discovered that Dejah Thoris didn't have a navel". A Vuh-iniuh gentleman, suh, simply does not say such things! Anyway, even if he did, ERB very probably would have deleted it, for he had a rather strict moral sense and he does say in the preface to THE GODS OF MARS, "There is much which I have left out; much which I have not dared to tell."

Although Thomas Gardner may be correct in his interpretation of the passage in A PRINCESS OF MARS, actually the whole case for navels is based on only Dave Prosser's illustrations. And, in any event, we still have the evidence of ERB on the other mammalian characteristics of the people of Barsoom.

So, we still hold with the theory that the Barsoomians represent a transitional species somewhere between the true mammal and some other lower form of life.



MAP OF BARSOOM (continued from page five)

cannot be greatly in error if we place Amhor due north of Gooli, at, say, 57° N, 8° W. An apparent discrepancy now arises, however, for according to THE MASTER MIND OF MARS, p. 86, some 5,000 haads lie between Amhor and Duhor; but if we have correctly located the two cities the great-circle distance between them is only about 2,590 haads. However, this disagreement may stem from a mis-translation of Valla Dia's story in MASTER MIND, p. 84-7. It will be noted that Duhor and Amhor are at nearly the same latitude and just about 50° apart in longitude. I consider it likely that Valla Dia was referring to "fifty karads" of longitude from Duhor to Amhor, but that in quoting her story Paxton failed to consider the high latitude of the cities and simply assumed 50° of longitude are equal to 5,000 haads.

Of course, the locations derived in this discussion are approximations, dependent in the first place upon correctness with which we located the city of Gathol and the meridian of Horz. No doubt there are many minor inaccuracies and, as we have noted, a number of rather serious discrepancies in the data which Burroughs provided us; but I think it will be agreed that on the whole our results make good sense. While it appears improbable that John Carter will ever again return to Earth, we may still nourish the hope that he will do so some day and give us a true, detailed map of the enchanting planet Barsoom.

# BURROUGHS LETTERS (continued from page nine)

TARZAN STORIES AND, IF YOU ARE ALSO ANYTHING OF A MOVIE FAN, I WANT TO SUGGEST THAT YOU BE SURE TO SEE THE NEW TARZAN PICTURE, TARZAN AND THE GOLDEN LION, WHICH IS JUST BEING COMPLETED BY F.O.B. HERE. I HAVE SEEN SOME OF THE WORK DURING THE MAKING AND ALSO SOME OF THE RUSHES AND AM CONVINCED THAT IT IS GOING TO BE THE GREATEST TARZAN PICTURE, AND POSSIBLY ONE OF THE GREATEST ANIMAL PICTURES EVER MADE. WE HAVE AT LAST FOUND A MAN WHO REALLY IS TARZAN AND WHOM I BELIEVE WILL BE RAISED TO THE HEIGHT OF STARDOM THROUGH THIS PICTURE. HE IS A UNIVERSITY MAN AND A FORMER WALTER CAMP SELECTION FOR AN ALL-AMERICAN FOOTBALL TEAM. WHEN YOU SEE THIS PICTURE, I WILL GREATLY APPRECIATE IT IF YOU WILL DROP ME A LINE AND LET ME KNOW WHAT YOU THINK OF MR. PIERCE'S WORK IN IT.

In a report of this kind, it is impossible to cover every letter but I can't resist quoting from a 1934 reply to a request for an autograph. To quote: I AM VERY SORRY TO DISAPPOINT YOU IN THE MATTER OF THE CHECK AS IT HAS BEEN MY POLICY NOT TO FURNISH MY AUTOGRAPH IN THIS FORM. I AM VERY GLAD, HOWEVER, TO ENCLOSE A COPY OF MY BOOKPLATE.

There are many brief bits of information in a May 5, 1948 letter, from which I quote:- I MAY EXPLAIN THAT IF THE GLOSSARY, IN THE BACK OF THUVIA MAID OF MARS, NAMED THE CITY OF HORZ AS THE MARTIAN GREENWICH, THAT IS INCORRECT. IT IS REALLY EXUM.

I DO NOT KNOW THAT THE JOHN CARTER ON JUPITER SERIES WILL BE PUBLISHED IN BOOK FORM, ALTHOUGH IT MAY BE—EVENTUALLY.

ARGOSY RENAMED "TARZAN AND THE CASTAWAYS" "THE QUEST OF TARZAN" WITHOUT MY AUTHORITY.

I PAID SOME CHAP \$50.00 TO DRAW THE MAP OF VENUS AND IT WAS SO BADLY DONE THAT I DECIDED TO DO IT MYSELF.

While this brief report covers only a small fraction of the available letters, I believe it illustrates the type of interesting information available to collectors in this area.

# TARZAN COUNTDOWN (continued from page thirteen)

such a creature vital, because he epitomizes some deep-felt need for greatness that we can associate with, an inspiring height to which each of us might aspire. Poor quality in depicting such a symbol degrades it.

We seem to be on the verge of an improvement in some of the visual Tarzans—the movies, the comic strip, and comic books, and plenty of constructive criticism can only help this movement along. So let the producers hear what we think of their efforts, stressing quality in their interpretations. And let's REALLY BLAST them every time poor renditions kick our hero in the teeth.



