

THE ORIGIN OF THE FREYANS



JOHN A. ANDERSON

MARCH 2018

LAST MODIFIED: AUGUST 30, 2018

1. Introduction: The Freyan Mystery

In the Terro-Human Future History of H. Beam Piper, the so-called alien race of Freyans, who inhabit a planet 700 light-years from Terra,¹ are actually human beings. At first sight, one of the Terrans who discovers them exclaims, "Why, they're *human!*" A first impression that is entirely correct, as they later learn that the Freyans do not "differ from any of us any more than a full-blooded Mongoloid differs from a full-blooded Negroid or Caucasoid", "do not possess any non-human characteristics, or lack any human ones,"² and are therefore "human to the last degree".³ This means they are interfertile with Terrans. In the story "When in the Course—", Roger Barron and the Freyan princess Rylla fall in love and plan to marry, which will no doubt lead to having children together;⁴ while Nancy Patterson actually does marry the young Freyan officer Harmakros (son of "Old Chartiphon, the captain-in-chief"), and soon thereafter becomes pregnant.⁵ And in *Uller Uprising*, the Terran sociographer Paula Quinton says that "I've always been in sympathy with extraterrestrial races; one of my great-grandmothers was a Freyan."⁶

Since they are unquestionably human beings, what is the origin of the extraterrestrial Freyans? The options would seem to include parallel evolution, emigration from Terra or Old Mars, a spacefaring alien race of kidnappers or 'seeders', or interstellar-traveling Paratimers.

2. Parallel Evolution

Parallel evolution is the theoretical means by which Earthmen in science-fiction stories can travel to other planets and meet aliens who are very much like themselves. Presumably based on the reasoning that any planet which is sufficiently Earthlike will have a very similar evolutionary history, eventually resulting in the development of a parallel human, or at least humanoid, species. This is a widespread concept in sci-fi, particularly in movies and television, which must use human actors to play these roles. Thus, in the Flash Gordon and Buck Rogers comics and serials of the 1920s and '30s, "the main alien menaces (be they from Mars, Mongo or Saturn) were human in appearance."⁷ Even in Grade-A science fiction like *The Day the Earth Stood Still* (1951), we have Klaatu (played by Michael Rennie), an 'alien' from Venus or Mars who appears to be completely human.⁸ And the list could be greatly expanded.

In some of these, especially in the sub-genre of planetary romance (or "sword-and-planet") stories, Earthmen often fall in love with and marry an alien woman, usually a princess. The most famous of these characters is found in Edgar Rice Burroughs. In his tales of Barsoom, Burroughs has the Earthman John Carter travel to Mars, rescue the beautiful Barsoomian princess Dejah Thoris, and then marry and have children with her—even though the women of her race lay eggs, rather than bearing live young! In other stories, Burroughs had Earthmen romancing allegedly alien princesses from the Moon and Venus.⁹ And his books were so popular, they had plenty of imitators. One of them was Gardner F. Fox. In *Warrior of Llarn*, Fox has Alan Morgan travel from Earth to the distant planet Llarn, where he rescues, falls in love with, and marries the beautiful princess Tuarra of Kharthol. Despite the fact that her species evolved on a planet 330 light years away from Sol, not just nearby celestial bodies as in Burroughs.¹⁰

It's safe to say that parallel evolution resulting in a completely identical species on two different planets is a practical impossibility. And according to John Carr, when Beam submitted "When in the Course—", John W. Campbell "*probably had fits over the central idea of parallel evolution, as any good biologist would*".¹¹ Carr states elsewhere that Piper "was probably also the most Campbellian" among writers,¹² so it is highly unlikely that he would have used such an objectionable scientific premise. Particularly in a story he wanted to sell to Campbell, his "first and best market."¹³

This is supported by the fact that the Terran doctor in "When in the Course—", Charley Clifford, spends the whole tale denying the obvious humanity of the Freyans, because parallel evolution resulting in an identical species is impossible. At first, he says they are not human, but "Humanoid...Homoform, approaching tenth degree. But there'll be all kinds of internal differences, of course."¹⁴ Later, he expands this to "No, we simply mustn't speak of them as 'human'; that is reserved for *homo sapiens terra*. They're sapient beings, so we can call them people, but they are utterly alien to us, descended from a different though remarkably parallel line of evolution. We just can't call them human."¹⁵ And when Nancy Patterson announces her engagement to Harmakros, Clifford says they won't be able to have children. "Life here originated and evolved independently of life on Terra. We and the Freyans started from two different puddles of living slime, seven hundred light-years apart. You know the mechanism of

reproduction. The sperm and the ovum are away up the structural ladder. Each of them contains twenty-four chromosomes, with us; I don't know how many for the Freyans. Each of them contains thousands of genes. Here, for a simplified example, suppose a Terran locksmith made a lock, and a locksmith here on Freya made a key, neither knowing what the other was doing. What odds would you give against the key working in the lock? Well, that's almost an even-money bet beside the odds against a Terran spermatozoon fertilizing a Freyan ovum, or vice versa."¹⁶

At the end of the story, and with the confirmed pregnancy of Nancy Patterson, Dr. Clifford finally accepts that the Freyans are human. In fact, he "really seemed relieved that it was settled."¹⁷ But he stops short of admitting what this means. Since parallel evolution is impossible, then he was wrong when he said earlier that "They evolved here on Freya. There's no genetic connection at all between them and us."¹⁸ As to the real answer, John Carr adds that "*Beam probably had another ace up his sleeve, as he did nothing by accident; but what?*"¹⁹ Let's see if we can figure out Beam's hidden card, or cards. With parallel evolution discounted, the Freyans must have come from another planet. Most likely Terra or Old Mars, and either through their own efforts, or via spacefaring aliens or Paratimers.

3. Spacefaring Paratimers

The spacefaring Paratime option is highly unlikely, for three reasons. First, Carr states that the Paratime and Terro-Human Future History universes are not connected. "It is my opinion that both series are separate. If Piper had meant to bridge the two series, he would have done so in a more obvious manner—mentioning their common origin or having the Paratimers appear in his future history."²⁰ Second, Carr's opinion is supported by the fact that authors of Beam's generation did not make a habit of tying different series together. For example, Isaac Asimov's Foundation and Robot series of the 1940s and '50s were separate; he didn't connect them until the 1980s. So a cross-series involvement of Paratime personnel into the Terro-Human Future History does not seem plausible.

And third, even if they weren't separate series, Beam does not mention any instance where Paratime personnel travel to the stars, even though there are a number of timelines which possess hyperdrive. Chief's Assistant Verkan Vall of the Paratime Police informs us that "There are Second Level civilizations, and one on Third, that have over-light-speed drives for interstellar ships."²¹ The Paratimers don't need hyperdrive; they have "a near-infinity of worlds"²² (mainly alternate-timeline Terras, but also alternate Marses and Venuses) to exploit, this 'intertemporal' empire being their version of an interstellar one. So while Paratimers *could* travel to the stars, they apparently do not.

Since spacefaring Paratimers are also improbable, this means that the Freyans emigrate from Terra or Old Mars either through their own ingenuity, or via spacefaring aliens.

4. Spacefaring Aliens

This option postulates that a spacefaring alien race, for reasons unknown, kidnaps some humans from Terra or Old Mars—or even some previously-unheard of 'precursor' planet, where humanity may have originally evolved—and transplants them to Freya. It would be a plausible theory if Piper had included an alien race who are superior to humanity in at least one of his stories. But he didn't. Terro-Humans are always superior, and usually vastly superior, to all other sapient races. This is consistent with Beam's status as a Campbellian writer, because John W. Campbell had a strong aversion to superior aliens.

In the classic Foundation series, "[Isaac] Asimov described a totally human galaxy; partly to avoid Campbell's prejudice against relationships between humans and aliens in which the humans were inferior."²³ As Asimov put it, "John [Campbell] could not help but feel that people of northwest European descent (like himself) were in the forefront of human civilization and that all other people lagged behind. Expanding this view to a galactic scale, he viewed Earthmen as the "northwest Europeans" of the galaxy. He did not like to see Earthmen lose out to aliens, or to have Earthmen pictured as in any way inferior."²⁴

For this and other reasons, Asimov took it to an extreme, and the Milky Way of his Robot and Empire series include no sapient aliens at all. "Thus was born the "all-human galaxy."²⁵ Piper was more reasonable; he has at least nine sapient alien races during the Federation period,²⁶ and fourteen in the First Galactic Empire—and both of these universal states only control a small part of his Milky Way.²⁷ By simple arithmetical extension, there should be more than 30 alien races (though perhaps many more) by the time of his Fifth Galactic Empire, which appears to encompass the entire Galaxy.²⁸ But as a

Campbellian writer, Beam followed John W.'s preference, by having none of his aliens superior to Terro-Humans. Indeed, they're usually many centuries if not many millennia behind. The most advanced alien race that we know of, the lizardlike Ullerans, are from 600 to 1200 years behind the Terrans,²⁹ while the "Fairly early paleolithic" Fuzzies are about 2 million years behind.³⁰

Furthermore, the aliens he does include are not only far behind technologically, they're vastly outnumbered. In the Fuzzy novels, the Terran Federation contains 500 human-inhabited planets,³¹ as compared to nine alien-inhabited worlds. A ratio of 55.6 to 1. It's even worse in the First Galactic Empire, which includes 1,365 human-inhabited planets as opposed to 14 alien-inhabited.³² The ratio here is 97.5 to 1. And unquestioned human dominance seems to continue to the end of the Future History. In "The Keeper", we learn that the Fifth Galactic Empire is ruled by Terro-Humans (though perhaps by that far future time, we should call them Galacto-Humans) such as "the Prince Salsavadran and the Lord Dranigrastan."³³ No aliens at all are even mentioned in the story.³⁴

If we include Piper's novel *First Cycle*, which seems to fall within the THFH, human supremacy still holds. One of the two alien races of that story, the catlike Hetairans, achieve space flight roughly "six hundred years" ago, "give or take ten percent."³⁵ Since the current Terran year is AE 572,³⁶ they develop it right around the same time human beings do, circa AE 15.³⁷ However, the Hetairans are conveniently destroyed in an interplanetary nuclear war with their neighbors, the little green Thalassans, and this occurs at about the same time as WWII on Terra. The result is that the Thalassans become totally extinct, and the Hetairans nearly so.³⁸ Thus, neither species go on to develop hyperdrive, which would have occurred slightly before or after the Terrans do.³⁹

Even in Beam's non-THFH tales, there is no situation where human civilization encounters a superior alien one. *Lone Star Planet* contains a few advanced alien races, but humans and their Solar League are still superior. The example here is the canine-like z'Srauff, the main threat in the story, who became an interstellar species due to human benevolence. "They had developed normal-space reaction drive ships before we came into contact with them, and they had quickly picked up the hyperspace-drive from us back in those days when the Solar League was still playing Missionaries of Progress and trying to run a galaxy-wide Point-Four program."⁴⁰

Piper therefore appears to have shared Campbell's view that Terrans are the "northwest Europeans" of the galaxy; though he seems to have broadened it to simply "Europeans". The conquest of the Galaxy by Terro-Humanity parallels the conquest of the Globe by the various nations of Europe, beginning with Spain in 1492. Indeed, Beam says as much. "Yes. And when Mars and Venus are colonized, there will be the same historic situations, at least in general shape, as arose when the European powers were colonizing the New World, or, for that matter, when the Greek city-states were throwing out colonies across the Aegean."⁴¹ Notice that both of his examples involve expansion by European peoples.

Like parallel evolution, the lack of superior aliens therefore falls into the category of Piper not using story concepts he knew Campbell would not like. No superior aliens in the Terro-Human Future History (or indeed, in any of Beam's works) means no interstellar kidnapping or seeding of humans by non-humans. This also negates the idea of a previously-unknown 'precursor' planet; and as we will see, Piper left evidence to that effect. Thus, the origin of the Freyans must be due to human ingenuity, either Terran or Old Martian.

5. A Terran Origin

A Terran origin is also highly unlikely. As a lover of history, Piper appears to have followed the fully accepted view of modern historians that there have been no technologically advanced Terran civilizations prior to our own. Certainly none with interplanetary or interstellar travel. More importantly, Beam gave no example in any story of such a culture. If he were going to make the Freyans expatriate Terrans from, say, a highly advanced Atlantis which briefly achieved interstellar spaceflight, he would have hinted at it. But this is not the case; his Terro-Human Future History is simply tacked onto the near-future 'end' of normal human history, somewhere between the 1950s and 1973 ("The Edge of the Knife"). Since Terra has no interplanetary spaceships before the late Twentieth Century (AE 31), no interstellar ones until the mid-Twenty-Second Century (AE 192),⁴² and Freya is presumably discovered less than a hundred years later (circa AE 234; see below), Terro-Humans could not have been the ones who colonized Freya.

While I agree with Carr that Paratime and the THFH are two separate series, the presence of human-looking Martians in “Omnilingual”, as evidenced by their surviving artwork and extant remains, suggests that Piper was using the Martian colonization of Terra as the basis for both. Different series, same underlying concept. But even if one accepts that Old Mars colonizes THFH Terra 100,000 years ago, then Earth is still not the answer. The last page of “Genesis” implies that Terro-Humanity undergoes a long, slow rise from Cro-Magnon barbarism toward modern-day spaceflight. The Martian character Olva supports this, by saying “Well, maybe, in a hundred thousand years, our descendants will build a ship and go to Doorsha [Mars], then.”⁴³ She’s right, as this is exactly what happens in the 1996 of “Omnilingual”. And this time-frame is confirmed by Conn Maxwell in *The Cosmic Computer*. “People aren’t *meant* to do things, they *mean* to do things, and nine times out of ten, they end by doing them. It may take a hundred thousand years from a Stone Age savage in a cave to the captain of a hyperspace ship, but sooner or later they get there.”⁴⁴

6. An Old Martian Origin

Since parallel evolution, spacefaring Paratimers, spacefaring aliens and expatriate Terrans are all improbable where not impossible, this leaves Old Mars. As John Carr says, “Like many other writers of the late forties and early fifties, Leigh Brackett, Ray Bradbury, and others, Piper seemed fascinated by the red world and its Lost Civilizations.”⁴⁵ This is reflected in the Martian colonization of ancient Terra in the Paratime series (which had five different results, creating five different Paratime levels), as well as the Old Martian ruins and human remains found in “Omnilingual”. That Beam was using the same underlying concept for both series is also supported by the fact that the Old Martians of “Omnilingual” died out “fifty thousand years” ago.⁴⁶ Their extinction therefore occurs at least 25,000 years after—and is consistent with—the attempt to colonize Terra “about seventy-five to a hundred thousand years ago” in the Paratime series.⁴⁷ It also agrees with Olva’s mention in “Genesis” that it will take 100,000 years for the renewal of human interplanetary travel. Put in proper chronological order, the Old Martians colonize Terra circa 100,000 years ago; they die out on Mars 50,000 years later, and their Terro-Human descendants build a spaceship and return to Mars 50,000 years after that.

Furthermore, just as Beam describes the Freyans as “human to the last degree”, the Old Martians in “Omnilingual” are described as being identical to Terro-Humans. While investigating a university in the Martian city of Kukan, the archaeologist Martha Dane sees “murals...of heroic-sized Martians, so human in appearance as to seem members of her own race”. And Ivan Fitzgerald declares that “from statues and busts and pictures I’ve seen, I’d say that their vocal organs were identical with our own.”⁴⁸ The phrases “members of her own race” and “identical with our own” are other ways of saying “human to the last degree”, like the Freyans. Piper even says unequivocally that “the ‘Men from Mars’ [are]—*ourselves*.”⁴⁹ Although this quote applies to Paratime, the fact that he seems to have been using the same colonization premise for both series means it should also apply to the THFH. The Old Martians, Terrans and Freyans are the same species; therefore, the Terrans and Freyans came from Mars.

7. Lost Races

John Carr also says that “Throughout his body of work, Piper shows a fondness for certain themes: nuclear war, [and] lost Martian races”.⁵⁰ And, “Not all of Piper’s stories and themes were concerned with nuclear war or the fall of civilization. *He was also fascinated by the idea of lost races—especially the Old Martians*—a theme that dominated a good part of the science-fiction of Piper’s youth. H. Rider Haggard, Edgar Rice Burroughs, Grant Allen, A. Merritt, and many others wrote exciting adventures about lost races, civilizations, and worlds in inaccessible regions of the globe—Africa, the North and South Poles, the Himalayas, or the Amazon Basin.”⁵¹ Perhaps most presciently, Carr states that “Like the themes of nuclear war and the lost Martian races, time travel was a theme that would appear in many guises.”⁵²

Simply flip the last two examples, and we see that, “like nuclear war and time travel, *the lost Martian races was a theme that would appear in many guises*.” Assuming their ancestors came from Mars, the Freyans would then be a ‘lost Martian race’; an isolated remnant of one of the lost civilizations of Old Mars. In the tradition of Haggard, whose Kukuana tribe in southern Africa are descended from the ancient Egyptians (*King Solomon’s Mines*); and Burroughs, whose white-skinned Therns at the south pole of Mars are a remnant of the ancient Orovans (*The Gods of Mars*). Piper was a great fan of both authors,

and at one time wanted to write like them.⁵³ Thus, it appears that he simply extended the lost race concept from a remote region of Earth or Mars to a hitherto-unexplored planet of another star.

In answer to John Carr's question, I believe this is one of the aces Piper had up his sleeve.

That the Freyans are a lost race of Martians is supported by the name of their language. "The language, they found, was called Sosti; it was spoken all over the river-valley system to which the Freyan civilization was confined."⁵⁴ Just as "French" or "Italian" is the name of a language and the people who speak it, the Freyans probably call themselves the Sosti people, the singular form of which could be 'Sost'. Beam might therefore have derived Sosti or Sost from 'lost'. Where did the initial 'S' come from? Perhaps from 'souls', making the Freyans lost souls. The derivation would then be 'Souls lost', or 'So--st'. And the Freyans are indeed lost souls; not only in terms of distance from their home planet Mars, but in the religious sense, as well. For in "When in the Course—", the Sosti people have been suffering under the yoke of the fraudulent god Styphon for "five or six centuries".⁵⁵

Piper even provides a few words of the Freyan language, which further supports their Martian origin. Princess Rylla says to Roger Barron, "Me Rylla-dad-Hostigos. Rylla-dad-Hostigos *tsan vovaru*. Roger Barron *doru vovaron*."⁵⁶ Parenthetically, this appears to translate as "I am Rylla of Hostigos. Rylla of Hostigos [is] my name. Roger Barron [is] your name." But the Freyan words *tsan vovaru* and *doru vovaron* seem very similar to the Martian words in "Omnilingual", such as "*Mastharnorvod Tadavas Sornhulva*".⁵⁷ This makes perfect sense, if the current Freyan language is descended from Old Martian.

In fact, it suggests that the Freyan language has not changed too much since the time they arrived. In this, they somewhat parallel the Martians of First Level Paratime, whose colonization of Terra was a "complete success", and whose language and culture have therefore not changed at all for the past 100,000 years. This cultural paralysis is reflected in their names—like Verkan Vall and Tortha Karf—which are the exact same style as those in the ancient time of "Genesis"; Kalvar Dard, Seldar Glav.⁵⁸

However, the colonization of Freya was obviously not a complete success! For the Freyans are a medieval-equivalent people who have forgotten their Martian origin. Thus, unlike the Martians of First Level Paratime, the Martians who colonize Freya must meet with some disaster, like their Terran cousins. So why doesn't their language change much, while those on Terra evolved and split into many tongues? The story suggests that Freyan culture was frozen when Styphon's House took control. Their civilization is "an ancient one; the language was uniform, and the culture and economy unified. These were a warlike people; the nobleman was first of all a warrior. Then why hadn't there been conquests, and, long ago, a single empire? Apparently there never had been."⁵⁹ However, this cultural paralysis can only have been since gunpowder was invented by the priests of Styphon. Five or six hundred years prior to the story, as opposed to the many thousand years before that when the Freyans were free people.

I therefore submit the language didn't change much because the Freyans did not spread out much. They are confined to a single river-valley system on a single continent.⁶⁰ This means they never broke into separate civilizations on separate continents or subcontinents—which is what happened on Terra—so there was never a time when different dialects, and then languages, could develop.

8. How They Get There

But even if that's right, how can the Freyans come from Old Mars? For in "Genesis", Piper implies that the first interplanetary Martian spaceship is also its last. As it approaches the Earth-Moon system, the detectors fail, and several meteor strikes cause catastrophic damage, which causes the ship to explode a short time later. A few survivors escape in a rocket-boat and make it to Terra, where they consider the implications of its destruction. "And that was the first and only space-ship ever built. It took fifty years to build her, and even allowing twenty for research that wouldn't have to be duplicated, you can figure when we can expect another one." "The answer to that one is, never. The ship blew up in space; fifty years' effort and fifteen hundred people gone, like that." Kalvar Dard snapped his fingers. "So now, they'll try to keep Doorsha [Mars] habitable for a few more thousand years by irrigation, and forget about immigrating to Tareesh [Terra]."⁶¹

Coming as it does from Piper's viewpoint character, that statement by Dard seems pretty definitive, but is it truly a rational response? After "a few more thousand years", irrigation will no longer be possible on Mars, and the Martians know that this means they will become extinct. Dard therefore bears "a frightful

weight...[the] responsibility for an entire race.”⁶² And yet, *there’s still time*, several thousand years of it! If your civilization, and in fact your very species, is doomed to extinction, and your first attempt to colonize another planet fails, would you just give up? Of course not! You would try again, perhaps changing the plan to increase your chances of success. For instance, instead of building a second gigantic spaceship, which the quote implies will take another thirty years, you might build two or three smaller ships, to insure that at least one of them makes it to Tareesh. Smaller ships would only take 10 or 15 years to build, use much less material per vessel, and would make smaller targets for any meteors they might encounter.

And double or triple redundancy is found in a couple of Piper’s works. In “The Edge of the Knife”, the United States builds secret duplicate and triplicate rocketports, in order to keep their Lunar fortress supplied in wartime; thereby ensuring that world supremacy remains in American hands.⁶³ And in *The Cosmic Computer*, Conn Maxwell says, “I have maps and plans of all the installations that were built on this planet—literally thousands of them, many still undiscovered...For instance, *all the important installations exist in duplicate, some even in triplicate*, as a precaution against Alliance space attack.”⁶⁴

As the only means by which the Old Martians can save themselves, a spaceport would certainly be considered an ‘important installation’, but that would be vastly understating the case. It would be critical, making double or triple redundancy in regard to interplanetary spaceships even more imperative.

So a second attempt by the Old Martians, in a smaller ship or ships, is both essential and feasible. But since the biosphere of Mars is slowly declining, time is of the essence. The Martians would most likely try again sooner, rather than later. For if they wait too long, loss of atmosphere and water, plus fighting other Martians over dwindling resources⁶⁵ would cause their civilization to decline below the threshold of spacefaring capability. In fact, as the most complex feat of human engineering, space travel would probably be the first technology to be lost. After this happens, emigrating becomes impossible.

This means that Kalvar Dard may simply be wrong about no more ships being built on Mars. Or, he might be right, *but only for the Paratime universe*. If the THFH is truly a separate series, then Beam could have decided to use a slightly altered variant of the Martian-origin premise. Thus, in the Fourth Level of Paratime (which is what “Genesis” refers to), no more ships would be built after the first one is destroyed, conforming to Dard’s statement. But in the THFH (separate, but paralleling timelines in the Fourth Level), sometime after the first attempt similarly ends in disaster, another group of Martians tries again.

If this scenario is correct, it would confirm Carr’s opinion that the two series are indeed separate.

Since Piper’s method of interstellar travel is always faster-than-light, the Old Martians in the THFH probably develop a prototype hyperdrive before losing the technology of space travel. It is therefore probably invented not too long after the Dard expedition, perhaps only a few centuries. This would be consistent with modern Terro-Humans, who invent the Dillingham hyperdrive in AE 192, a mere 139 years after their first interplanetary voyage, the Cyrano Expedition in AE 53. The Martian hyperdrive would then be invented too late to save their civilization, but in time to allow a second group of colonists to depart.

One would guess that, like building smaller ships, this advanced propulsion system is also developed as a result of the failure of the first attempt to colonize Terra. Hyperdrive would allow the Martians to avoid the meteors that destroyed the first ship, and would greatly shorten their travel time, which means far fewer precious resources (air and water especially) will be needed to keep the colonists alive during transit. And as a prototype, the Martian hyperdrive could be installed in a smaller interplanetary vessel, making it more economical to build.

In this regard, it is very interesting that Piper actually mentions a Dillingham hyperdrive in relation to the Freyans! Which brings us to his historical models, of which there are two. The first is

9. The Boer Historical Model

a) *The Dutchmen of England and South Africa*

That the Freyans leave Old Mars on their own is supported by their historical model. It is known that Beam partly modeled the Terran Federation on the British Empire. For example, the Uller Uprising is modeled on the Sepoy Mutiny,⁶⁶ while in the Fuzzy novels, the Chartered Zarathustra Company is based on entities like the British East India Company.⁶⁷ And Piper gives at least one hint about the Freyans. “He was surprised, too, at the [Freyan] muskets. They were, he said, almost exactly like guns he’d seen in museums in Cape Town and Johannesburg, which had been used in the Great Trek.”⁶⁸

This suggests that the Freyans are modeled on the Boers. The Boers, or Afrikaners, were Dutchmen who voluntarily settled in South Africa, beginning in 1652. The Cape of Good Hope was originally established as “a re-supply and layover port for vessels of the Dutch East India Company trading with Asia”, but it “rapidly expanded into a settler colony in the years after its founding”. In 1806, or 154 years later, the British came in and permanently took over the Cape Colony.⁶⁹

Since the Terran Federation is partly modeled on the British Empire, the Federation annexation of Freya would then be modeled on the British acquisition of the Cape Colony. Terra would parallel Britain (with Venus paralleling Ireland), Mars would parallel Holland (with Phobos and Deimos paralleling the Frisian Isles), and Freya would parallel the Cape. Terra is much larger than Mars, and they are neighboring planets separated by a short stretch of interplanetary space, while Freya is 700 light-years away across interstellar space.⁷⁰ Similarly, Britain is much larger than Holland, and they are neighboring countries separated by a short stretch of the North Sea, while the Cape Colony is about 8000 miles away down the length of the Atlantic Ocean. (Figure 1.)

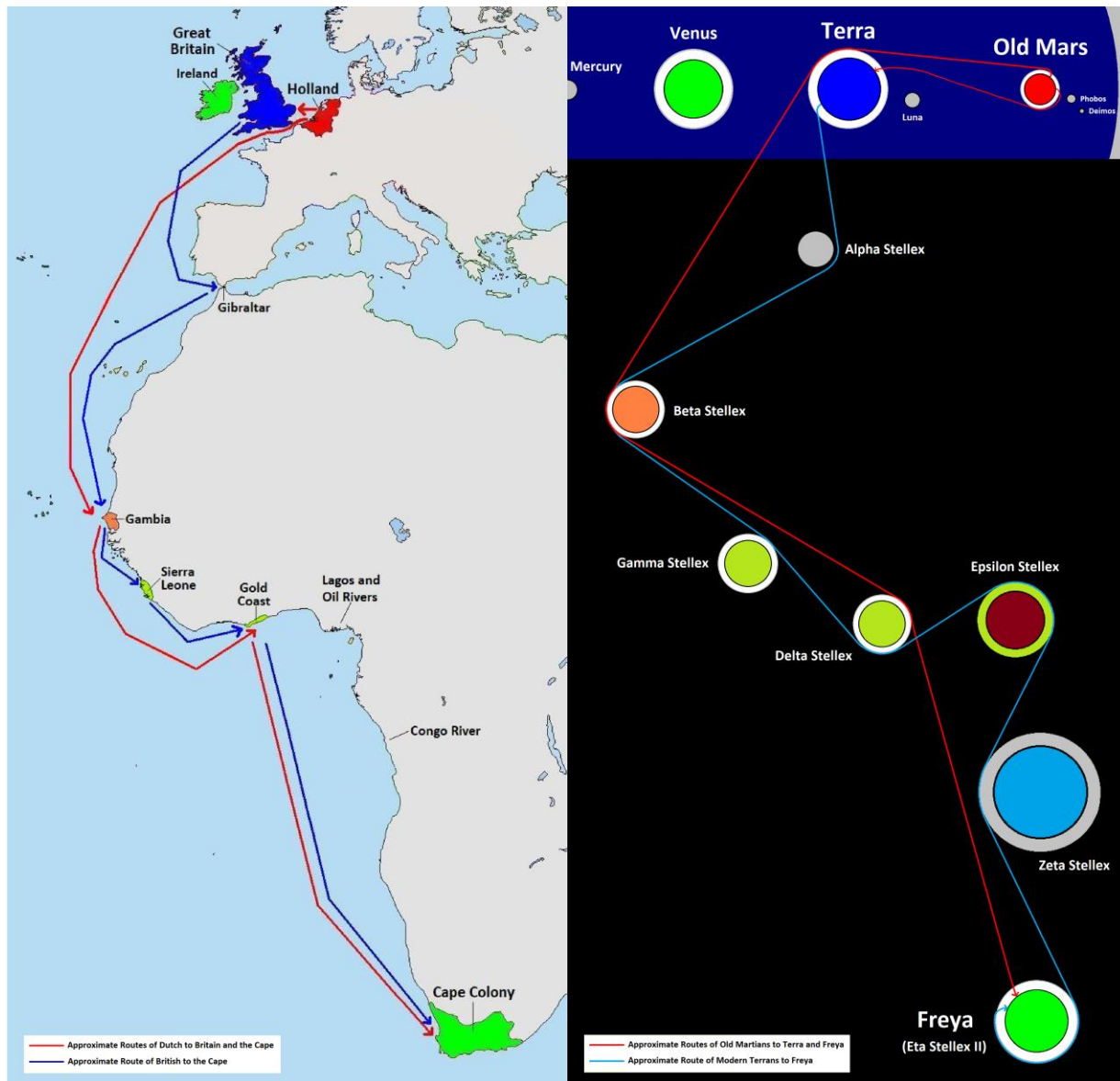


Figure 1. Dutch and British routes to the Cape Colony, compared to postulated Old Martian and Terran routes to Freya.⁷¹

And there are more connections here. In late Roman times, Frisians from Holland were among the Germanic tribes who raided and settled in Britain. (The others being Angles, Saxons and Jutes.) This means that 'Dutchmen' settled Britain over a thousand years before they settled the Cape. The British could then be considered 'western Dutchmen', who eventually followed and took over the Cape from their 'eastern Dutch' cousins. The parallel here is obvious. The Old Martians colonize Terra, then sometime later, Freya. That makes the Terrans 'western Martians', who eventually follow and take over Freya from their 'eastern Martian' cousins.

Of course, the parallel is not exact, as the Old Martians become extinct long before the Terrans arrive to annex Freya. But that the Dutch, English and Boers are all Germanic peoples who speak Germanic languages also has a connection to Old Martian. For in "Omnilingual", Martha Dane muses that "This language, she had long ago decided, *must be something like German*; when the Martians had needed a new word, they had just pasted a couple of existing words together."⁷²

It is also interesting that the Dutch East India Company founded the Cape Colony, whose trade was later monopolized by the British East India Company.⁷³ This may mean that when the Terrans get "The Chartered Freya Company"⁷⁴ established, it is supplanting what was originally a 'company' of Old Martians who set out to find their own planet.

The Boer model is further supported by the Terran character Adriaan de Ruyter. Although he is not a Freyan, he seems to be from South Africa, since his hyperyacht is the *Voortrekker* ("Pioneer", named for the Trek Boers).⁷⁵ The *Voortrekker* is the first ship which comes close to Freya, being used by Adriaan to reconnoiter the planet before the first landing. Moreover, de Ruyter is the first Terran to speak in "When in the Course—". In the lounge of the *Stellax*, he begins discussing the results of the mission he flew around Freya, accompanied by Reginald Fitzurse and Lourenço Narvaes.⁷⁶

The Boer model enables us to learn a bit more about the voyage of the Freyans' Martian ancestors. (Again, see Figure 1.) The Dutch sailed through the English Channel on their way to South Africa, so the Martians fly by Terra before heading into interstellar space. The Dutch controlled a few ports along the African coast (Gorée at the mouth of the Gambia River, Axim and Accra on the Gold Coast); this suggests that the Martians stop at two or three planets before finally settling on the beautiful planet Freya.⁷⁷ The reason they keep going is likely the same reason Europeans were long unable to penetrate the West African interior; tropical diseases (particularly malaria), intemperate climate and hostile natives.⁷⁸ Gambia is on the edge of the Sahara; on the chart I have symbolized this by giving its parallel planet an orange color, denoting Mars-like desert conditions. The Gold Coast (present-day Ghana) is tropical, which is represented by the Martians' deduced second stop at a bright green planet. This green is purposely a bit sickly, since hostile life-forms and/or an unhealthy atmosphere probably prevent the Martians from settling here.⁷⁹

By the time the British took over the Cape Colony, they likewise had several possessions between England and South Africa; Gibraltar, Gambia, Sierra Leone and the Gold Coast. I have added the delta regions of Nigeria (Lagos and the Oil Rivers) and the Congo, because the British had (or would soon have) interests in both places.⁸⁰ Though the Congo ended up in Belgian and French hands rather than British, that makes a total of six, thereby agreeing with the Terran explorers, who "visited six airless, waterless, poisonous and otherwise abominable planets" in "six systems" before reaching Freya.⁸¹

Notice that two of the British enclaves (in Gambia and Ghana) were previously Dutch, which means the Terrans may actually visit a couple of planets previously visited by the Martians on their way to Freya. Since the Freyan system is "Eta Stellax", these systems are presumably named Beta and Delta Stellax.⁸²

b) The "Two Other Continents" of Freya

The Boer or South African model explains several other things about the Freyans. First is why their planet has "two other continents".⁸³ These parallel the other two major Afrikaner settlements in South Africa, the Orange Free State and the Transvaal. When the Terrans arrive, the Freyans have not yet settled the other continents because when the British took over the Cape Colony, the Orange Free State and Transvaal did not yet exist. It was the subsequent British abolition of slavery that prompted many Afrikaners to embark on the Great Trek. "In 1834, Parliament banned slavery throughout the British Empire. A fraction of the slave-owning Cape Afrikaners refused to accept this dispossession of their human property and set out to the north to escape the reach of English law. Through 1836 and 1837, five thousand Boers trekked north in covered wagons, taking along their cattle, sheep, and black slaves,

fighting native tribes along the way. The Great Trek rumbled across the veldt for a thousand miles, and eventually came to a halt in a stretch of rolling hills beyond the Vaal and Orange Rivers.”⁸⁴

In “When in the Course—”, something similar happens on Freya. When the Terrans break the gun-powder monopoly of the priests of Styphon, they liberate the Freyans from “the chains of theocratic despotism”; a parallel of slavery.⁸⁵ But as part of that effort, they create a national army in Hostigos, which means the mercenaries that were being employed will be out of work, and could therefore become a problem. So Roger Barron privately arrives at a solution, musing that “it would be a good plan to collect a lot of [the] free-companies and use them in colonizing the other continents”.⁸⁶ The mercenaries who settle the other two continents are a mere fraction of the available Freyans, paralleling the ‘fraction’ of Boers who left the Cape. The Freyan free-companies would then be a subtle connection to the Orange Free State and independent Transvaal—whose men proved to be fierce fighters, as both the Zulus (in the Battle of Blood River) and the British (First and Second Boer Wars) learned to their regret.⁸⁷

On Freya, the ‘Great Trek’ parallel will therefore be overseas rather than overland. And Beam reinforced the South African model, by having the Freyan civilization itself made up of three Great Kingdoms. Aside from Hos-Harphax, which is in “the south-central” part of its continent, there is Hos-Rathon, “down the river” and “in the delta country”, and “Hos-Bleth, to the east [of Hos-Rathon] along the coast.”⁸⁸ Three large political entities, and landmasses, on Freya; three large Afrikaner political entities in South Africa. —Of course, by the end of the story, Freya has a fourth Great Kingdom; Hos-Hostigos. As a new kingdom, this seems to be smaller in area than the others.⁸⁹ And in South Africa, the Boers did in fact create a fourth, small, state. This was Natal, along the coast. Its independence was short-lived, however; the British took it over after just three and half years (1839-1843).⁹⁰

A fully settled, three-continent, Federation-ruled Freya would then parallel British South Africa when it became unified; the Cape Colony, Orange Free State and Transvaal. The small province of Natal might then be paralleled by a large island on Freya, which lies close to the other two continents. (Figure 2.)

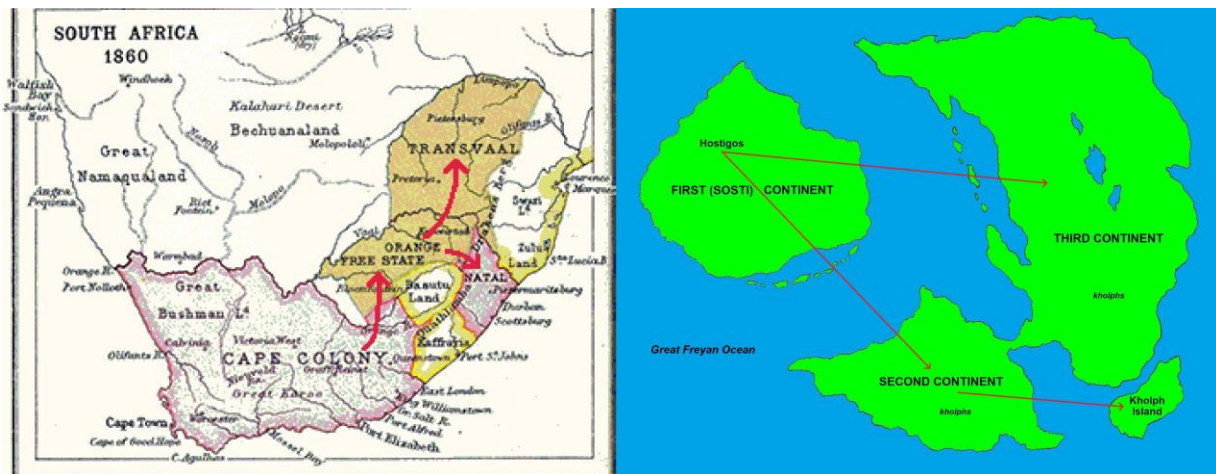


Figure 2. Trekker routes in South Africa; and postulated map of Freya, showing settlement routes of its other major landmasses.⁹¹

c) The Native Question

Second, like South Africa, Freya has ‘natives’. For in *Little Fuzzy*, we learn of the kholphs, a sub-sapient animal undergoing mentation studies on Zarathustra, along with Terran chimpanzees and Mimir black slinkers.⁹² Since they are not mentioned in “When in the Course—”, we can assume the kholphs are not known to the human Freyans, and are therefore not discovered until the other two continents are settled by the free-companies. And during the Great Trek, the Boers encountered several tribes of African natives, including the Xhosa, Sotho (Basuto), Swazi, Pedi, Ndebele (Matabele) and Zulu.⁹³

Although they are not sapient, the kholphs seem pretty intelligent. Ahmed Khadra says that “Kholphs are smart...They use tools.”⁹⁴ This means that the Freyan mercenaries who settle these continents could actually train them as servants, paralleling the black slaves of the two Boer republics. Piper might then have derived the name “kholph” from “kaffir”, the derogatory term for African blacks; and depicted in

Figure 2 as the country of “Kaffraria” east of the Cape Colony.⁹⁵ The derivation of kholph from kaffir would parallel *Space Viking*, in which Beam used the planet Nergal as a play on ‘negroes’.⁹⁶ However, since the Trekkers had fights with several tribes, including the Ndebele and especially the Zulu, some of the kholphs may be hostile to the Freyan humans who begin settling their continents.⁹⁷

Third, the Boer model also explains the only other site of civilization on Freya, the “small and apparently unrelated patch at the northern corner of the continent”.⁹⁸ This is the original Martian landing site, paralleling the fact that the Boers landed at the southern corner of the African continent. The Cape has a warm, Mediterranean-type climate, which is echoed in the warm climate of the Freyans’ river-valley. “There was no window-glass, and the fireplaces had an unused look. Evidently it never got cold here.”⁹⁹

Piper presumably changed the southern corner of Africa to the northern corner on Freya for a couple of reasons. One is that he was a subtle man, and it would keep the Boer model from being too obvious. Another is because the Freyans originally came from Mars. Mars is farther from the Sun than Terra, and its climate is therefore cooler. The emigrants land in the northern part of Freya because its cooler climate is similar to the one they were used to on Mars. This parallels the Martians in “Genesis”, who land not far south of the retreating ice-cap on Terra.¹⁰⁰ After crash-landing and losing their technology, the Martians’ Freyan descendants eventually migrate south to warmer climes, where the development of a new civilization, beginning with the reinvention of agriculture, is more easily accomplished. But their northern origin is not only revealed by the fact that Nancy Patterson thinks their ancestors were nomads,¹⁰¹ but that their dwellings contain unused fireplaces. Building hearths when they are no longer needed is an example of cultural inertia; a remnant of the days when the Freyans’ ancestors lived in the north. And not coincidentally, the ancestors of the Boers also lived in the colder north; in Holland, from which they migrated to sunny South Africa.

d) The Canals of Mars and Holland

The deduction that Holland parallels Old Mars is also supported by the fact that both are home to many canals. Piper certainly followed the conception, begun by Schiaparelli in 1877, that Mars was crisscrossed by a network of *canali*, or channels; mistranslated as ‘canals’, this was popularized by people like Percival Lowell as evidence of a planetary irrigation system built by an ancient and highly advanced civilization. And in “Omnilingual”, not only does Beam have “the main expedition” travel to Mars aboard the spaceship *Schiaparelli*, one of his characters muses about “the underground aqueducts everybody called canals in mistranslation of Schiaparelli’s Italian word”.¹⁰²

As for Holland, its dikes and windmills are world famous, but it is also home to a vast network of canals, including in the cities. “Many Dutch cities were built around canals. Alkmaar Utrecht, Dordrecht, Leiden, Groningen, Leeuwarden and Amersfoort are cities with cityscapes that are characterized by graceful canals. Of course, Amsterdam has the best-known canals. The Amsterdam Canal District is on the UNESCO World Heritage List, and the city has even been nicknamed the “Venice of the North”.¹⁰³ Also, “Amsterdam was created with canals of concentric circles facing the IJ Bay in the seventeenth century. Three canals were designed with residential development in mind. The fourth outermost one was created for defense as well as excess water management. These waterways were interconnected by radiating canals, forming a fan shape.”¹⁰⁴

Unlike desert Mars, which needs canals to transport what little water is available in the ice-caps to cities in the lower latitudes, Holland needs canals to rid its cities of overly abundant water. As a low-lying and sodden country that is constantly threatened by the sea, water management has been an essential fact of life for centuries. Water management is critical on Mars, too; just for the opposite reason.

So in the Boer model, the canals (aqueducts) of Mars parallel the canals of Holland, and the Martian settlement of one continent on Freya parallels the Dutch settlement of the Cape section of South Africa. Of course, the Martians who left for Freya (Boer parallel, 1652) could not have done so only 154 years before the Terrans (British parallel, 1806) arrive! That would mean the Martians landed on Freya around AE 100, or roughly 49,950 years after they died out on Mars. Nor can they be actual Boers from Terra, a possibility discounted by the character Charley Clifford. “You wouldn’t claim, would you, that some Boers had their ox carts fitted with Dillinghams, and trekked out here to Freya with their guns? No...”¹⁰⁵ As we’ve seen, this is impossible, so the Martians must have settled on Freya sometime prior to 50,000 years ago. That is a much earlier age, which brings in Beam’s second historical model for the Freyans.

10. The Ancient Greek Historical Model

a) “He Replied From the *Iliad* in the Original”

When the Terrans first arrive on Freya, they have the usual trouble communicating with an alien race. Roger Barron “stopped twenty feet from [Rylla], lowered his hand, and bowed. She said something in a sharp, demanding voice. He smiled at her and asked her if she’d ever thought of going into tele-movies. She spoke again—different intonation, probably different language. He shook his head and replied from the *Iliad* in the original.”¹⁰⁶

Notice that Roger attempts to communicate with the Freyans using Ancient Greek *before* learning that their names actually sound Greek! He learns their names on several subsequent pages.¹⁰⁷ Granted that since their names sound Greek, their speech probably does so as well. Or, at least one of them does; the first language Rylla speaks sharply in is probably the one which resembles Old Martian, as shown above; while the “different language” she tries next could remind Roger of Ancient Greek, which is why he quotes from the *Iliad*. But none of this is made explicit. So Barron’s subtle ‘impression’ of Ancient Greek, which is correct, suggests that the Freyans have a second historical model. And in fact, Piper’s use of the word ‘original’ in relation to the *Iliad* may mean that the ‘origin’ of the Greek-named Freyans should be looked for in that epic. So now let’s pursue that clue, and see if we can figure out what the author had in mind.

b) *Ancient Wars and Epic Voyages*

The *Iliad* recounts a great war in the dim early period of Western history, involving a coalition of Greek cities versus the Trojans and their allies. This legendary conflict heralded the beginning of the end of ancient Hellenic, or Danaan, civilization. For the epic events in the *Iliad* were followed by those of the *Odyssey*, and soon thereafter came the Dorian invasions and the Dark Age of Greece.¹⁰⁸ Thus, in the second historical model, Piper’s Old Planet Mars would parallel the Ancient Greek World.

This suggests that, sometime after Kalvar Dard and his surviving crew land on Terra, there is a ‘Martian *Iliad*’, or great war, back on the home planet. It is most likely a world war between two alliance systems (paralleling the Greeks and Trojans, as well as alliance systems in Terran world wars), who are fighting for supremacy or resources on slowly-declining Mars. Occurring in the dim early period of Terran history (only recently settled by a few Martio-Humans), this forgotten conflict heralds the beginning of the end of Old Martian, or Doorshan, civilization. For the war is apparently severe enough that, not too long afterward, barbarian invasions occur and a ‘dark age’ on Mars begins.

Parenthetically, it may be an Atomic War, since the Old Martians had atomic power.¹⁰⁹ And an Atomic War, occurring only a century or two after the Dard expedition to Terra, would be similar to the Fourth World War on Terra, which occurs a half century after the Cyrano Expedition in “Omnilingual”, and causes the “Complete devastation of [the] Northern Hemisphere of Terra.”¹¹⁰ Since Mars is a much smaller planet than Terra, its correspondingly smaller and declining biosphere would suffer to an even greater degree from such a conflict. But before the Red Planet’s dark age starts, this ‘Atomic *Iliad*’ is immediately followed by a ‘Martian *Odyssey*’. Although the real *Odyssey* was undertaken by one of the victorious Greeks who was returning home (Odysseus, or Ulysses), the deduced Martian *Odyssey* is probably by refugees from the losing side, who escape into space to find a new home. For on a planet like Mars, to stay is to die, particularly if you’ve lost the struggle over resources. Most importantly clean water and air, which may have just suffered a sudden sharp decline due to a nuclear war.

Thus, rather than Greeks, this would actually make the emigrating Martians a parallel of the refugee Trojans, who left the Ancient Greek World after their city was sacked and destroyed. These refugees include the ones led by Aeneas, who colonized central Italy and founded Rome; and a later group led by Brutus, who colonized southern Britain. The two groups of departing Trojans would therefore parallel the two groups of departing Martians. Dard’s trip to Terra would parallel the voyage of Aeneas to Italy; the eventual rise of the Terran Federation founded from Old Mars (after the span of ‘normal’ human history, which Piper left intact) would parallel the eventual rise of the Classical Roman World, founded from the Ancient Greek World. And the much greater voyage of Martians to Freya, which leave the relative safety of the known Solar System to brave the perils of interstellar space, would parallel the much greater voyage of Brutus (the great-grandson of Aeneas) and his Greco-Trojan followers to Britain, who left the relative safety of the Mediterranean Sea to brave the parallels of the world-encircling Ocean.

c) *Peninsulas Parallel Planets*

Two more maps may make the historical or legendary models clearer. (Figures 3 and 4.)¹¹¹

The first thing we notice from these maps is that the Mediterranean Sea parallels the inner Solar System, and peninsulas parallel planets. Iberia, Italy, Greece, and Asia Minor (separated from Greece by islands) parallel Venus, Terra, Mars, and Jupiter (separated from Mars by the Asteroid Belt).¹¹²

Assuming this is roughly correct, the Ancient Greek or 'Mediterranean' model enables us to learn even more details about the voyage of the Freyans' Martian ancestors. After three days of sailing, Brutus and his Greco-Trojan followers stopped at "a certain island"; this means that the emigrating Martians initially leave the surface for Phobos or Deimos, a short rocket flight away. Since Beam's early interplanetary spaceships apparently don't land on planetary surfaces,¹¹³ one of these moons may house the deduced Martian ship with the prototype hyperdrive. The Greco-Trojans then sailed to Italy, so from the moons of Mars, the Martians journey to Terra (thereby agreeing with the Terran flyby in the Boer model, above). In Italy, some descendants of Aeneas and the earlier Trojan exiles joined Brutus' expedition; thus, the Martians actually recruit a few of Kalvar Dard's descendants on Terra.

Incidentally, since the Martian exiles are the losers in a war over resources, the reason they don't stay on Terra is probably fear of pursuit by the victors back home. After the Martian Iliad occurs, Mars probably still possesses spaceflight, and in "Genesis", it is implied that there are larger rockets than the "little Class-3 rocket-boat", flown by an Air Force pilot, which has enough power to reach Terra from Lunar distance and return. Class-2 or Class-1 rockets could conceivably pursue the exiles all the way to Terra; though it might be a suicide mission, as they likely would not have enough fuel to return to Mars.¹¹⁴

The Greco-Trojans then sailed around Iberia into the Atlantic Ocean, so the Martians fly by Venus before departing the Solar System into interstellar space. This time, the reason they don't stay and settle is probably because, in keeping with astronomical opinion of the 1950s, Piper's Venus is a hot, swampy planet.¹¹⁵ It would therefore not be a good place to try and start a new civilization. Continuing northward, Brutus and his followers landed at the Loire River in Gaul, intending to settle there, but were forcefully repulsed by the warlike inhabitants. This means that after leaving the Solar System, the Martians land on an Earthlike (or at least Marslike) world whose inhabitants are fierce, so they are forced to leave and find another planet. Since the world in question must be located between Terra and Freya, it would have to be one which is later named from Norse mythology by the Terrans. Thus, it could be "Mimir, [which is] swarming with a race of semi-intelligent quasi-rodents, murderous, treacherous, utterly vicious".¹¹⁶ 'Swarming' suggests a very large number, which the Martian exiles—few in number and limited in supplies—might be unable to withstand. After failing to settle in Gaul, the Trojan exiles finally arrived in Britain; and after failing to colonize (possibly) Mimir, the Martian exiles finally discover Freya.

From the maps, we also notice that Freya is literally at an astronomically greater distance from Mars than Britain is from Greece. In order for Mimir and Freya to fit, I had to greatly truncate their interstellar journey. Thus, the two depicted 'interruptions' in their voyage would represent these hyperspatial jaunts. Probably the first ever attempted, let alone completed, by any sapient species.¹¹⁷ (In a parallel manner, the distance between Terra/Mars and Freya is greatly shortened on the Boer model map in Figure 1.)

d) *The Dark Age of Mars*

That the Freyans' ancestors leave Mars before the collapse of civilization results in a 'dark age', is supported by "Omnilingual". When excavating Kukan, a city of "the last Martian civilization", Colonel Penrose says "I think that this place must have been something like a monastery in the Dark Ages in Europe, or what such a monastery would have been like if the Dark Ages had followed the fall of a highly developed scientific civilization."¹¹⁸ Using Selim von Ohlmhorst's nomenclature, Kalvar Dard may therefore have lived during the era of the Canal Builders.¹¹⁹ Since the 'Martian Atomic Iliad' occurs soon after, its environmental and societal effects would cause the eventual collapse of this highly developed scientific civilization, leading to barbarian invasions and the deduced dark age on Mars. What survives of civilization would become concentrated in canal-cities like Kukan, which von Ohlmhorst refers to as the Late Upland Culture.

Meanwhile, the refugee Martians who fled off-planet eventually land on Freya, possibly after reconnoitering Terra and Venus, but certainly after taking the first hyperspatial trip by human beings.

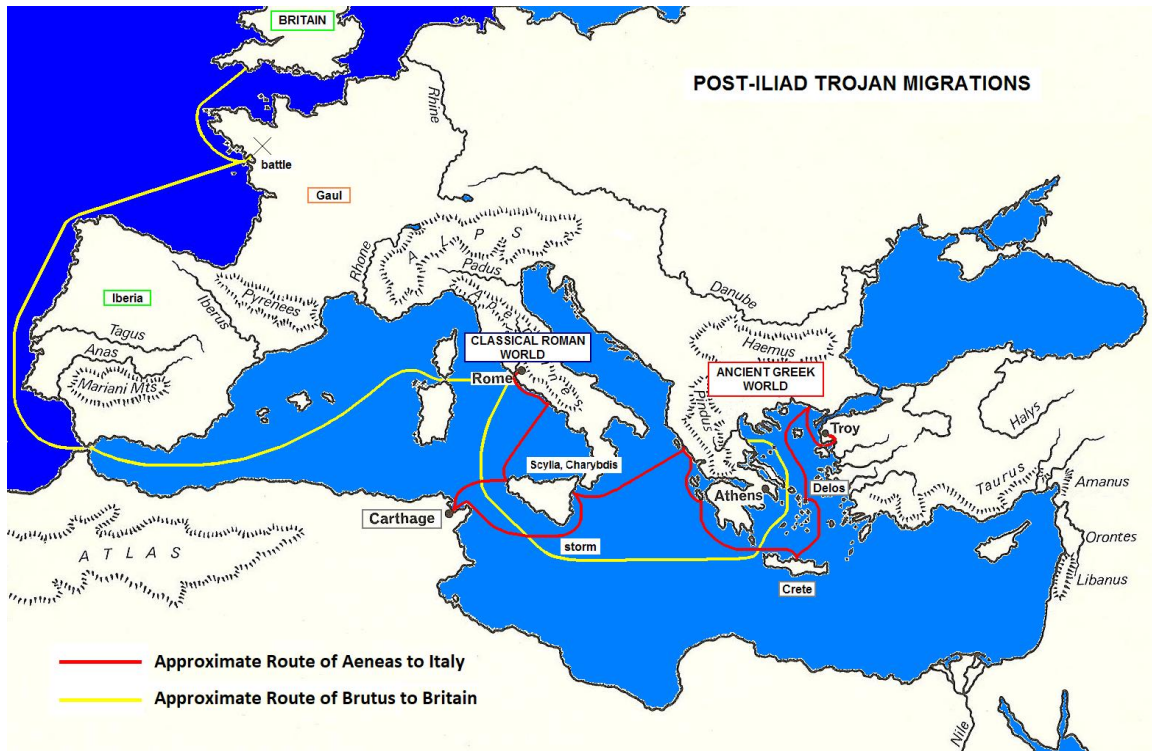


Figure 3. The ancient sea voyages of Aeneas and Brutus. ¹²⁰

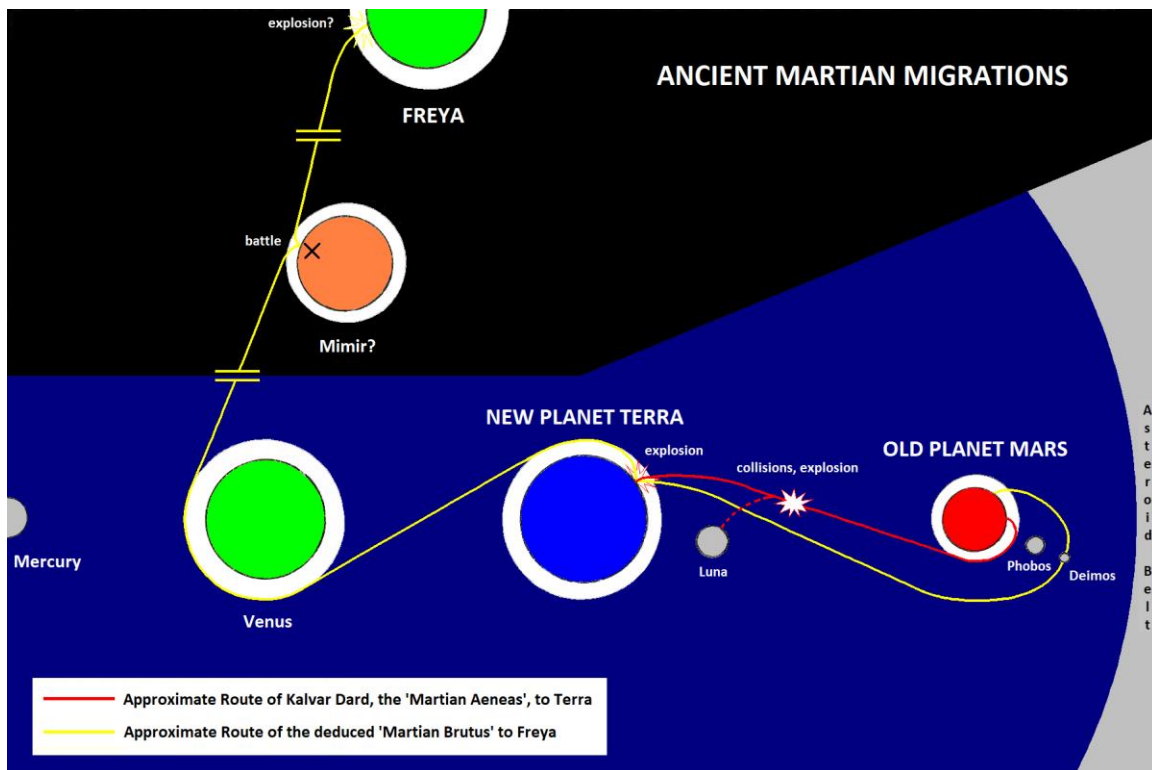


Figure 4. The ancient space voyages of Kalvar Dard (the 'Martian Aeneas') and the deduced 'Martian Brutus'.

In addition, the story's antagonist character (Tony Lattimer) derisively mentions that "if we're ever able to attribute any [Martian] place names, they'll sound a lot better than this horse-doctors' Latin the old astronomers splashed all over the map of Mars." ¹²⁸ Previous astronomers, such as Proctor in 1867, did not use Latin; they named Martian features for fellow Mars observers, resulting in place names like Herschel Continent, Cassini Land, Tycho Sea, and Newton Strait. ¹²⁹ But Schiaparelli mainly used Latin, and referenced the literature of classical Greece and Rome, as well as the Bible. ¹³⁰ This gave us much more interesting names like Solis Lacus, Deucalionis Regio, Tyrrhenum Mare, Cydonia and many others.

And when we look at Schiaparelli's map of Mars, we find the answer; or perhaps, answers. Piper's Scandinavian-looking, Greek-named Freyans probably come from the regions named 'Scandia' and 'Hellas'. (Figure 5, in yellow.) Thus, the Freyans are a remnant of the Old Martians who lived in the higher to middle latitudes of the Red Planet. Scandia is above 65 degrees north latitude, while Hellas runs from 30 to 55 south latitude. The Freyans' ancestors probably come from the higher latitudes because that's where the main source of water on Beam's Mars is located; the polar ice caps, and therefore one of the places where civilization might be expected to last the longest. ¹³¹

In this regard, the Terran Greeks were of course great mariners, colonizing many islands and coasts throughout the ancient Mediterranean. And from the map, we see that Martian Hellas is a large island in the Mare Australe (Southern Sea), presumably meaning that in Mars' early history, the 'Martian Greeks' expanded in a parallel maritime manner. Thus, among the places they settled would likely have been the other islands in the Mare Australe; Thyle I and II, Agyre I and II, Dia, and the small island of Novissima Thyle. 'Dia' is named for a small island just north of Crete; while 'Thyle' is an alternate form of 'Thule', the ancient Greek name for a land in the far north, probably Iceland or Scandinavia. ¹³² Thyle I, II and Novissima Thyle could be called the Thylvian (or Thulian) Isles, and the south polar region of Mars actually combines the Greek and Scandinavian (or 'Helleno-Thulian') elements of the Freyans.

Interestingly enough, this is also the case near the Martian north pole. Scandia borders on the regions of Nerigos, Abalos and Baltia; which are named, respectively, for "a fictional country, supposedly in or near Scandinavia", "A no-longer existent island in the North Sea", and the lands around the Baltic Sea. ¹³³ But to the east of Baltia lie Ortygia and Cecropia. These have a Greek origin, being named for the Aegean island of Delos and a mythical king of Athens, Cecrops. ¹³⁴

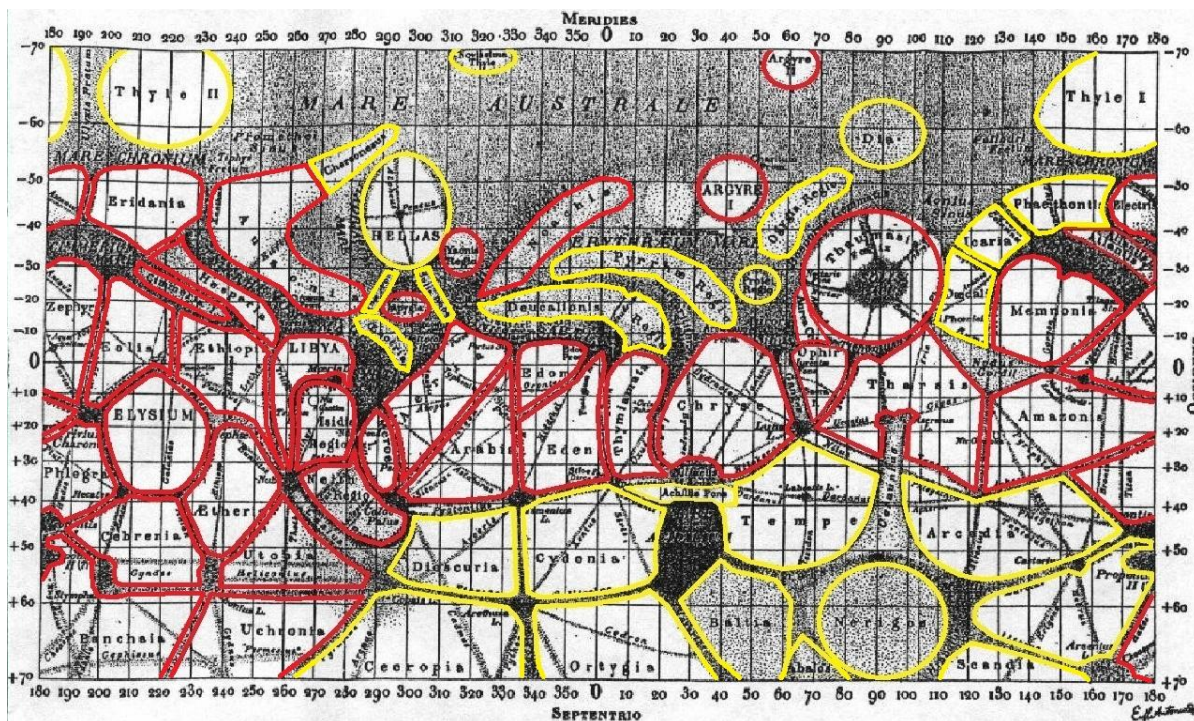


Figure 6. Greco-Scandinavian regions of Schiaparelli's Mars (in yellow), and non-Greco-Scandinavian regions (red).

Assuming this line of reasoning is correct, it allows us to learn more about the deduced Martian Iliad. This great war, which precedes the Freyan Odyssey and Martian Dark Age, is fought between the nations of the poles and the nations of the equator; presumably over control of the polar ice caps, the well-spring of all Martian life. In addition, it involves a coalition of Greco-Scandinavian nations (Figure 6, in yellow) against an alliance of non-Greco-Scandinavians (Figure 6, in red), since Schiaparelli mainly named the equatorial regions of Mars after warmer, non-European regions of Terra; such as Aethiopsis, Arabia and Edom. And west of Edom are the regions of Memnonia and Amazonis; these refer to Trojan allies who fought against the Greeks. Memnon was a King of Ethiopia who was killed by Achilles. The Amazons joined the fray after the death of Hector, and their queen, Penthesilea, also died by Achilles' hand.¹³⁵

The ironic result is that, in the Red Planet's Iliad, the 'Greeks' (for example, the Hellenes, Dians and Thylians in the south; Cecropians, Ortygians and Scandians in the north) lose, and then become 'Trojans', being forced to leave their planet and find new homes elsewhere, as mentioned previously.

Of course, the Martian Iliad may not be precisely between Greco-Scandinavian regions and the others, because the map doesn't show an exact split between the polar and equatorial zones. Thus, the non-Greco-Scandinavian polar regions of Panchaia and Uchronia (named for a legendary island in the Indian Ocean, and 'Nowhen'; matching the bordering region of Utopia, 'Noplace') and the 'Argyre Isles' (Argyre I and II, named for a legendary island of silver in the Indian Ocean)¹³⁶ may belong to the polar alliance. And lower latitude Greco-Scandinavian regions like Oenotria and Deucalionis (named for a people of Greek origin in southern Italy, and a son of Prometheus)¹³⁷ could join the equatorial alliance.

However, since the Freyans are "light-skinned and fair", the refugees who actually leave the Red Planet to find a new home must be mostly, if not entirely, from Greco-Scandinavian regions like Hellas and Scandia.

12. On the Beauty of Freyan Women

a) *Fair-Haired (Demi-)Goddesses*

This brings us to the extraordinary beauty of Freyan women. Their "shapely" good looks causes the character Julio Almagro to say, "Pity Venus is a planet already...How about Aphrodite?"¹³⁸ The Greek goddess Aphrodite is the model for the Roman Venus, and in his famous painting *The Birth of Venus*, Sandro Botticelli depicted the goddess with fair hair.¹³⁹ But in Piper, Astrographic Office rules prohibit using "Helleno-Roman names for anything outside the Sol System", so the Terrans settle on calling the planet Freya, after the Norse goddess of love and beauty—and, given the planet's constant conflicts, war.¹⁴⁰ The Norse deity Freya is described as "the golden-haired and blue-eyed goddess", and Princess Rylla is a "lovely, lovely blonde" whose good looks are mentioned multiple times.¹⁴¹ Several centuries later, in the time of *Uller Uprising*, the fair beauties of Freya are legendary throughout the Terran Federation. Summed up by Carlos von Schlichten as "Freya, where...the women were so breathtakingly beautiful".¹⁴²

Aside from these comparisons to goddesses, the Martian regions of Hellas and Scandia can explain where this element of beauty comes from. Let's start with 'Hellas'. What was the *Iliad* fought over? The abduction of Helen, the most beautiful woman of the ancient world, and wife of King Menelaus of Sparta, by the Trojan prince Paris. Helen's was "the face that launched a thousand ships";¹⁴³ the pursuit by the enraged Greeks after Sparta's lost queen. Her extraordinary beauty was no doubt due to being a demi-goddess, as Helen was the daughter of Zeus and the mortal woman Leda. Like Freyan women, Helen of Troy is believed to have been fair-haired, as is the greatest hero of ancient Greece, Achilles. The Greek word used to describe them was *xanthos*, meaning 'fair', a word also used to describe the sun god, Apollo. This was taken by Germanist scholars of the Nineteenth and early Twentieth Centuries to mean "that the Greeks envisioned their gods and heroes as Nordic blonds."¹⁴⁴

We can therefore deduce that the Martian Iliad is fought not only over control of the ice-caps, but women, to continue the race. In a world of slowly-declining resources, the possession of enough women to keep your country populated, especially in providing soldiers to defend it against other nations, would become crucial. The earliest disputes over women would probably begin over the most desirable ones, while in later ages, the ever-declining Martians wouldn't be so particular. This means that the spark which ignites the Martian Iliad may be very similar to that which launches the Terran one.

For instance, the Red Planet's continuing decline means that the polar nations would want to retain more of the ice-caps' shrinking water supply for themselves, while the equatorial nations would demand more because they have more people. This dispute would only get worse over time, and finally, an open breach would occur. Perhaps to press their demands for more water, an equatorial nation 'detains' some fair-haired females of a polar nation; women being another critical resource. The polar nation, refusing to be blackmailed, demands the return of their females, and cuts off the equatorial nation's water supply until they are. The equatorial nation appeals to its friends for help, and then the polar one does as well, thereby turning the dispute into opposing alliances. The equatorial nations have warmer climates and larger populations (and therefore larger armies), but the polar nations control the all-important ice-caps.

The 'abduction' of the fair women may therefore cause this simmering conflict to boil over. Facing an overwhelmingly powerful equatorial alliance, the polar nations play their trump card, and block all water from being sent to all the equatorial nations. Their armies won't get very far without water to sustain them! The equatorial alliance, facing mass death, launches an all-out attack, which becomes a global war over resources. Mainly about water, but also over women.¹⁴⁵

b) The Fair Beauties of Iceland

But, you may object, Helen of Troy was just one woman. Why did Piper make *all* the Freyan women beautiful? This brings us to Martian Scandia, as well as the south polar Thyles, or Thules. The planet Freya is named for the Norse goddess of love and beauty, and the historical model for the fair beauties of Freya seems to come from 'Thule'—Scandinavia, but specifically Iceland. In general, Icelandic women are held to be extraordinarily good-looking. These include observations such as "Icelandic women are famed for their beauty", "Iceland...has a remarkably high percentage of beautiful women", and "The women of Iceland are complete knockouts".¹⁴⁶ "An example of the famed Icelandic fact that its women are stunningly beautiful [is] Anita Briem", the actress who played opposite Brendan Fraser in the 2008 remake of *A Journey to the Center of the Earth*.¹⁴⁷ But looks aren't all of it; in an interview, Briem herself states that "Icelandic women tend to be very strong and very independent",¹⁴⁸ characteristics which would certainly also apply to the Freyan Princess Rylla.

The reason for their beauty is due to how Iceland was colonized. Harald Fairhair was the King of Vestfold, and later the first king of all Norway. However, "His brutal new order drove many of Norway's finest men into exile, including those who fled west over sea and settled Iceland."¹⁴⁹ These 'finest men' are said to have taken only the most beautiful women with them—a practice they continued, for from their Icelandic bases they "would gather the most beautiful women from the villages they raided and then take them back to Iceland."¹⁵⁰ Thus, Icelandic women ever since have been exceptionally pretty on average.

Iceland was colonized from Scandinavia, and as we've seen, Freya may have been colonized from the 'Martian Scandinavia'; Scandia, plus the Thylvian Isles. Assuming so, then the men who depart the Red Planet for Freya are some of Mars' finest, and take only the most beautiful Martian women with them. A practice they presumably continue, for when they stop at Terra and recruit some of Kalvar Dard's descendants (the Greco-Trojan model, as described above), they apparently take only the prettiest females. Thus, modern Freyan women are all descended from beautiful Martio-Terran women, which explains why they are noticeably prettier than their modern Terran counterparts.

c) A B-Grade Influence

Of course, there may be a simpler explanation; or at least, another influence. We recall that Julio Almagro, whose "imagination...ran in that direction",¹⁵¹ gazes at the "shapely and lightly clad" Freyan girls, and says, "Pity Venus is a planet already...How about Aphrodite?" A planet of beautiful women with Greek names, bringing Venus to mind, is suggestive of the pulp stories and B-movies of Beam's generation. In these works, Venus was sometimes depicted as a planet populated by beautiful women wearing skimpy, Greco-Roman costumes. Such as in "The Golden Amazons of Venus" (*Planet Stories*, Winter 1939), *Abbot and Costello go to Mars* (1953) and *The Queen of Outer Space* (1958). Piper's story was written not long after the last of these. "After all the rewrites and complaining, "When in the Course—" was finished on January 5, 1960, and mailed off to Ken [White] the following day."¹⁵²

The young Beam was heavily influenced by the pulp magazines. As he put it, "This was the Neolithic, or Hugo Gernsback, period of science-fiction, and by this time I was a real 200-proof fan."¹⁵³ Mike Knerr

wrote that “It is obvious the ‘pulp’ nourished him mentally and taught him much of how writing was accomplished”, while John Carr says Beam “was already writing pulp adventure stories in the 1920s”.¹⁵⁴ A planet full of beautiful women in revealing clothes would naturally interest any young man, but for the A-grade writer he became, the older, more mature Piper would not use such an element unaltered. In a ‘real’ fictional universe, the question would naturally arise; how could all these lovely, Greek-looking women have gotten on Venus? And as we’ve seen, Beam’s answer was to have them originate in the Martian Greece and Scandinavia (Hellas and Scandia), give them a legendary Greek and actual Scandinavian historical model (Helen of Troy, plus the women of Iceland), and place them in another solar system on a planet similarly named for a goddess of love.¹⁵⁵

13. Piper’s Sources and Method

a) *The Short Answer*

All this talk of various historical and literary models may be a bit confusing. So let’s boil it down to the essentials. The Freyans are a remnant of the Old Martians (lost race model; Haggard, Burroughs, et. al), whose ancestors lived in the middle and higher latitudes of the Red Planet (Hellas and Scandia, plus the Thyllian Isles, Ortygia and Cecropia; Schiaparelli map). They left their planet in ancient times, perhaps only a century or two after the Dard Expedition, as a result of losing a war (Greco-Trojan model), probably involving control over the ice-caps. And in order to continue the race, which on Mars was doomed to extinction, they took some of the most beautiful Martian women with them (Greek and Scandinavian models, plus pulp influence). They traveled great interplanetary and interstellar distances on their own initiative, making several stops along the way (Greco-Trojan and Dutch/Boer models), finally landing at the extreme end of a continent on a planet very far from their home (Dutch/Boer model).

The planet they find has three continents, but even after many millennia they have only settled one so far (Dutch/Boer and lost race models), and their civilization resides in a particularly pleasant climate (Boer model, Cape Colony). When the modern Terrans (British model) discover them, they are essentially slaves of a theocratic despotism, which has kept them at war against each other for centuries (possible lost race model; immemorial war), but the Terrans quickly put an end to it (British abolition of slavery in the early Nineteenth Century). They discover that the Freyans possess ‘heaven-tea’, which is derived from “dried blossoms”,¹⁵⁶ and will soon be an important luxury good on the interstellar market (Dutch and British model; South Africa as an important way-station for the Asian spice and tea trades).

The Terrans sign a treaty with the local Freyans; this enables them to get a Chartered Freya Company established, which essentially rules the planet (the British East India Company acquisition of the Cape Colony in the early Nineteenth Century). Other Terrans soon arrive (British settlers arrived in the Cape), and the Terrans will soon airlift some of the unemployed Freyan mercenaries to colonize the other two continents (Boer model, creation of the Orange Free State and Transvaal from the Great Trek), where the sub-sapient kholphs will be discovered (South African black tribes, or ‘kaffir’, model). When Princess Rylla succeeds her father in a few decades, the whole planet will probably be politically united; but instead of a kingdom, it will be a Colony or Member Republic of the Terran Federation (British unification of South Africa in the later 1800s and early 1900s, after which it became a Dominion of the Crown).

b) *Multiple Characters, Multiple Models*

This scenario may seem a bit complicated, and some might wonder whether Beam could have put so much underlying thought into a simple sci-fi story he wanted to sell. Though admittedly no expert on such matters, my feeling is that it depends on the writer. Most may indeed not put so much effort into their craft, but Piper was no ordinary writer. As revealed in his stories, and in John Campbell’s criticism of this trait, we know he was able to mentally juggle a large cast of characters.¹⁵⁷ I submit it is no great stretch to suppose that he could also mentally juggle multiple historical and literary models.

In fact, since they provide the ‘scene’ or ‘background’ of the Future History stories he placed his characters in, the historical and literary models probably came first, before the characters or story. This is supported by the case of *Only the Arquebus*, in which Beam started out by deriving his (real historical) background from multiple sources, before even starting the story itself. These sources were the *Life of*

Cesare Borgia by Rafael Sabatini and *Ferdinand & Isabella* by William Prescott. (He studied a possible third source by “Guizot”—presumably the French historian François Guizot—but discovered “Very little in it”.) On September 10, 1960, he “Worked for a while on background and planning. Trying to get a story, with love interest, to fit the historical facts.” On September 12, he “Worked all evening putting what I got from Sabatini together with Prescott. From now on it’s mostly going to be Prescott. *Still don’t have an idea about fiction story.*”¹⁵⁸

Setting his future historical stage before writing a story enabled Beam to subsequently create some characters with hidden historical meaning, thereby enriching his tale. For example, the historical model of *Four-Day Planet*, with its monster-hunters, references to Herman Melville, and illegal off-planet enslavement of aliens, appears to be the early to mid-Nineteenth Century, when whaling was still widespread, but slavery had been outlawed in the British Empire (model for the Terran Federation), and the Royal Navy was stamping out the slave-trade. Piper’s inclusion of a strong Sikh character, Lt. Ranjit Singh, a former Federation Army officer whose small detachment of police stands firm against an advancing mob of monster-hunters,¹⁵⁹ therefore makes perfect sense. In the early to mid-Nineteenth Century, British control over India was steadily advancing, but there was one native ruler they hesitated to tangle with. This was the Sikh ruler of the Punjab, Ranjit Singh. Maharaja from 1801 to 1836, Singh led many military campaigns, and his “highly-trained and well-equipped army was thought in Calcutta to be almost a match for the [East India] Company’s own forces, although neither side had any wish to put this to the test.”¹⁶⁰ This reluctance is echoed in Beam’s story, in which the monster-hunters hesitate to attack Singh and his men, even though they greatly outnumber them. Through some quick negotiation, the standoff between the hunters and Lt. Singh’s force is defused, and a fight does not occur.

c) *Spice and Tea*

Parenthetically, did Beam’s subtlety go even further? We’ve seen that Freyan heaven-tea parallels the tea and spice trade. “The trade was changed by the European [Age of Discovery](#) during which the spice trade, particularly in [black pepper](#), became an influential activity for European traders.”¹⁶¹ Following that lead, we learn that black pepper is derived from “a *flowering vine*”,¹⁶² which can explain why Piper had Freyan heaven-tea derived from dried blossoms, rather than a tea-leaf parallel. It may be a creative combination of tea and pepper, supported by Beam’s description of it as a “hot *spicy tea*”.¹⁶³

If this is right, then it is very interesting that the pepper vine is known scientifically as *piper nigrum*; of the genus *Piper*, of the family *Piperaceae*, and of the order *Piperales*.¹⁶⁴

Coincidence? We know that Piper was familiar with scientific nomenclature, as the cases of sapient aliens on Uller (*Parahomo sapiens Ulleris*) and Zarathustra (*Fuzzy sapiens zarathustra*) attest.¹⁶⁵ And like ‘*piper*’ *nigrum*, Beam’s scientific descriptors of at least two alien species contain personal names. Before the Fuzzies were acknowledged to be sapient, they were named for their discoverer, Jack Holloway: *Fuzzy fuzzy holloway*.¹⁶⁶ And on the planet Khepera, there are “heavy-bodied unicorns...with long hair” which are used as cattle. “[T]he Khepera locals had called them Kreggs, probably a corruption of the name of some naturalist who had first studied them”.¹⁶⁷ We can therefore extrapolate that the Federation naturalist was named something like ‘Alonzo Craig’, and the animals were referred to as “Craig’s unicorns”, which in scientific jargon became something like *Unicorn craig khepera*.¹⁶⁸

d) “*The Man is a Genius*”

Multiple sources have testified to Piper’s unusual intellect. Jerry Pournelle said that “Our letters read like treatises. Beam, although not formally educated, had read more books than most professors; and he was a keen observer of human nature.” Also, “The casual reader will not easily deduce the historical models Beam employed...He knew the grand sweep of history, but he also knew the small tales”, and even “was familiar with forgotten details”.¹⁶⁹ John Carr has stated that “One of the unique aspects of H. Beam Piper’s later writings is that they have a very “lived in” feeling; it’s as if the author is a reporter from a different time or dimension—very believable. His knowledge of history and mankind gave them gravitas and verisimilitude.”¹⁷⁰ He also notes that “The Piper process was long and laborious, short story or novel, it made no difference; both got the full “Piper Treatment.”¹⁷¹ And from many conversations involving Piper at the Coleman residence, Don Coleman recalls that “Although wearing a fixed face and

attitude of supposedly complete apathy, he was on top of the entire curriculum...Because his mind was so vast and deep a reservoir in so many subjects, he weighed his words before he spoke.”¹⁷²

Thus, to echo Verkan Vall’s opinion of Calvin Morrison, I believe that H. Beam Piper was “a genius, and the fact that he was only able to become a minor police officer [railroad guard] on his own time-line shows how these low-order cultures allow genius to go to waste.”¹⁷³ Whether wittingly or not, I think this is really a statement by Beam on his own intellect and situation. He was a gifted writer who was able to take a number of disparate historical and literary elements, and creatively combine them into something new and rich, and yet keep these elements in the background so as not to detract from the (similarly numerous) characters and story he was telling. This takes a keen mind and great skill, as also noted by John Carr. “I found Piper’s penchant for inserting historical and cultural data into his stories masterful and incorporated some of his narrative styling into my own early novels.”¹⁷⁴

e) AE 1 = 1601 AD

And that’s not all. Some people may not realize that Piper wasn’t using historical models at random; he was applying actual timelines for his Future History. Back in September of 2000, one of the ‘keys’ to the Terro-Human Future History occurred to me. A simple equation; AE 1 = 1601 AD. In other words, just add 1600 to Piper’s early Atomic Era dates to get the historical model. The Third World War occurs in AE 31; adding 1600 would then equal 1631 AD, a date almost precisely in the middle of the Thirty Years War, which ran from 1618 to 1648. This gave new meaning to Beam’s other name for WWII, “the Thirty Days’ War”, and in hindsight it is a glaring clue. Adding 1600 to the date of the Secession of Venus then aligns AE 174 with 1774 AD; that is, the American Revolution.

The solution was simple, yet subtle; thus, it seemed to be “authentically Beam Piper”.¹⁷⁵

The AE 1 = 1601 AD formula also revealed the model for the Fourth World War. Beam mentioned this major event in several places (*Four-Day Planet*, *Uller Uprising* and *Crisis in 2140*), but provided very little information about it. In “The Future History”, however, he at least revealed its date, saying that WWIV runs from AE 106-109. Adding 1600 would make that range 1706-1709; right in the middle of the War of Spanish Succession, which ran from 1701-1713. That Piper was working with timelines made sense, because it would keep cause and effect relationships intact, allowing his Future History to progress just like real history.¹⁷⁶

This brings us back to Freya. As we’ve seen, Britain permanently acquired the Cape Colony from the Dutch in 1806, which using the formula means that the Federation should acquire Freya around AE 206. Beam did not provide the date for “When in the Course—”, but this seems a bit too close to the dawn of the Interstellar Age, which begins with the “First expedition to Alpha Centauri, [in] 192 A.E.”¹⁷⁷ Especially since we know from the story that planets like Thor, Loki and Yggdrasil have already been colonized.¹⁷⁸ However, we’ve also shown that when the Terrans free the Freyans from Styphoni oppression it parallels the British abolition of slavery, and that Piper’s reference to the Great Trek parallels how the other two continents of Freya will soon be settled by the mercenary companies. This should actually make the time of “When in the Course—” more like AE 234, paralleling 1834; the year the British abolished slavery, and therefore just before the Great Trek began. AE 234 seems a more reasonable date, although it could in fact occur later in the Third Century.¹⁷⁹

14. Conclusion: Mars Solves All Problems

a) Freyan Mysteries Explained

From the evidence presented, an Old Martian origin of the Freyans solves all problems. It explains why the Freyans are human, and interfertile with Terrans; both were originally Martio-Humans, so the biology problem as discussed in “When in the Course—” disappears. It explains why the Freyans look like Scandinavians but have Greek-sounding names; their ancestors came from the Martian regions named ‘Scandia’ and ‘Hellas’; and possibly other polar regions like Thyle I and II, Ortygia and Cecropia. It also explains why the Freyan words in that story are similar to the Martian words in “Omnilingual”; the Freyan language, Sosti, is descended from, and still resembles, Old Martian.

It can even explain why the Freyans are 700 years or so behind Terro-Humans in technology. As mentioned previously, the Styphon gunpowder theocracy has frozen their development for “five or six

centuries”, so before that time they were only one or two centuries behind the Terrans. This supports the Freyans’ ancestors leaving Mars a century or two after Dard (paralleling the expedition of Brutus, the great-grandson of Aeneas), crash-landing on Freya like Dard’s expedition did on Terra, and then starting over from scratch like their Terran cousins. Since “the biochemistry of [Freya] was entirely Terra-type”,¹⁸⁰ the development of civilization on Freya followed a parallel track; from Cro-Magnon barbarism “up to the level of say Sixteenth Century Europe.”¹⁸¹

This in turn explains why, when the Terrans arrive, the Freyans have not yet colonized the other two continents. “Up to the level of” doesn’t necessarily mean the Freyans are in their equivalent of the 1500s. They could be at a Fifteenth or Fourteenth Century level. And their seeming lack of ocean-going vessels supports an earlier century. The only ships the Freyans are mentioned as having are “river barges”,¹⁸² and these cannot possibly cross the ocean. But the barges are used by the people of Hos-Harphax, the river kingdom. The peoples of the coastal kingdoms, Hos-Rathon and Hos-Bleth, may well have sailing ships, but they have apparently not yet developed more advanced types, such as caravels, which are capable of making extended ocean voyages. That places the Freyans squarely before the Age of Discovery, or about a 1400-equivalent time.¹⁸³

Mars also explains the only other site of civilization on Freya, the “small and apparently unrelated patch at the northern corner of the continent”. This is the original Martian landing site, chosen because its cooler climate is similar to that of the higher-latitudes of Mars, which is where the Greco-Scandinavian refugees came from. After the Martians crash-land on Freya, their descendants eventually migrate south to warmer climes, but their northern origin is revealed by their former status as nomads (paralleling the plains nomads currently north of Nostor, which is in the northwestern part of the continent),¹⁸⁴ and that their present dwellings contain fireplaces, even though they are no longer needed.

The Martian landing site on Freya therefore closely parallels the first Martian landing site on Terra, which is likewise in the far north. Kalvar Dard and his surviving crew land at the “edge of the [northern] temperate zone”, not far south of the ice-cap. “There’s a pretty big Arctic ice-cap, but it’s been receding slowly, with a wide belt of what’s believed to be open grassland to the south of it, and a belt of what’s assumed to be evergreen forest south of that. We plan to land somewhere in the northern hemisphere, about the grassland-forest line.”¹⁸⁵ The reason the Martians ‘plan’ to land so far north, rather than a more congenial climate farther south, is precisely in order to acclimate themselves to their new home.

Thus, despite the disastrous landings, *both of these sites were deliberate choices*. And both groups adapted to their new environment in a parallel fashion. The Freyo-Human southern migration, from the cold north into a warm river-valley, part of whose terrain resembles “Switzerland and the Tyrol”,¹⁸⁶ echoes the Terro-Human southern migration from its original landing site—“were they the Caucasus? *the Alps?* the Pamirs?”¹⁸⁷—into the warmer climates of the Fertile Crescent, Mediterranean basin and India.

Those who would maintain that Freyo- and Terro-Humans do not come from Mars are ignoring the strong circumstantial evidence Piper left in “When in the Course—” and “Omnilingual”. A more explicit statement is not to be expected. Beam was a subtle man who left hints and clues; he preferred to lead his readers in a certain direction, and let them figure out the answer for themselves. That evidence leads to Mars being the original home of Terro- and Freyo-Humanity. Terra is settled via a barely-successful attempt when Mars was at peace (as in the Paratime series), and Freya is settled via a parallel marginal colonization later on, after Mars has had a world war over resources.

There is no explicitly conclusive, beyond-the-shadow-of-a-doubt evidence, but plenty of beyond-a-reasonable-doubt evidence that Mars is the answer. An Old Martian origin explains or can explain all Freyan anomalies, is consistent with Piper’s overall fascination with Mars, its lost civilizations and races, and his underlying theme that Men from Mars are the ancestors of humanity—which in the THFH means Terrans and Freyans. No parallel evolution (impossible), no spacefaring Paratimers (a separate series), no unknown, superior aliens (not found anywhere in Piper), and no ancient spacefaring Terran civilization (contrary to history) are needed; it all goes back to Mars.

b) The Origin of the Old Martians

And finally, can we go back even further? In an early section we saw that the lack of spacefaring aliens in Piper negates the idea of a ‘precursor’ planet, from which humanity could have been abducted and seeded on Mars, Terra and Freya. This is supported by the story “Genesis”, whose title implies that Mars is humanity’s ‘garden of Eden’, its place of origin; and by the Martian survivors on Terra, who

compare their home world to a utopian Golden Age. “All that they remembered, in the misty, confused, way that one remembers a dream, was that there had once been a time of happiness and plenty, and that there was a goal to which they would some day attain.”¹⁸⁸

The map of Mars confirms this impression, as it contains several regions Schiaparelli named after paradise; ‘Elysium’, ‘Utopia’, and, more significantly, ‘Eden’. Martian Eden is practically in the center of the 1901 map. As seen in Figure 5, it spans from just under the equator to about 38 degrees north.

The Biblical Book of Genesis describes how the first man and woman, Adam and Eve, were created in the garden of Eden. Although the rational and agnostic Piper undoubtedly rejected humanity’s religious creation in a Terran Eden, the map suggests that his wry and subtle scientific twist actually had his fictional human race evolve to sapience in the Eden region of Mars. The Biblical Eden is also referred to as the Earthly or Terrestrial Paradise; that would make the Martian Eden the ‘Marsly’, or better, the *Extra-Terrestrial Paradise*. (Figure 7.)



Figure 7. Schiaparelli's Martian Eden, the Extra-Terrestrial Paradise.

That the story title “Genesis” refers to Eden therefore means that Piper’s Martio-Humans are ‘Adam’, the ‘first’ men. And this is true, for Beam’s *homo sapiens* evolve on Mars, and then colonize Terra and Freya. In the Book of Genesis, God created Adam from the clay of the Earthly Paradise, so that the name ‘Adam’ literally means “the red earth”, because “he was the first man created from the red earth of Eden.” Furthermore, Adam is used as a synonym for ‘man’ or ‘mankind’; that is, humanity as a whole.¹⁸⁹ In full, then, Adam can be defined as ‘the first man created (later expelled) from the red earth of Eden’, or in its larger sense, ‘mankind from the red earth’.

But in Beam’s universe, Mars is Terro-Humanity’s original ‘earth’, so this becomes the Martio-Human Adams, who are ‘Mankind from the Red Planet’, or ‘the First Men, evolved in (later expelled or launched from) the Red Planet’s Eden’. Thus, the ‘expulsion from Eden’ of the Biblical Genesis, in which Adam and Eve were cast out for disobeying God, is probably the model for “the blastoff from Doorsha”¹⁹⁰ of Beam’s “Genesis”; an ‘expulsion’ or launch which occurs from the Red Planet’s Eden. And from the map, we notice that, as a semi-equatorial region, Martian Eden would make an excellent location for a spaceport. However, the Martians in that tale are not cast out; they leave the Martian Eden voluntarily, in order to establish a new ‘Eden’ on the younger planet Terra, with its “much more luxuriant” vegetation.¹⁹¹

In conclusion, not only do the Freyo- and Terro-Humans originate on Mars, but the Old Martians themselves probably originate in the region of Eden.¹⁹² Which, in the early history of the so-called Red Planet, was almost certainly a ‘green and pleasant land’; a well-watered and fertile garden. Martian Eden therefore appears to be the homeland of H. Beam Piper’s Old Martians; and later, when Mars becomes an old and dying planet, it is likely the site of the first spaceport which sends them out to other, younger and more verdant worlds. Thereby enabling the human race to have a new Genesis, a new Beginning.

15. Addendum

Is there anything left of the Freyan mystery? Well, even the current paper may not contain the whole answer, for in addition to his historical and literary models, Piper seems to have had a fictional model. The deduction that the Freyans originated near the poles of the Red Planet, plus their Nordic appearance, means they can be called a 'Lost White Race of Mars'. This suggests the influence of Edgar Rice Burroughs, who placed a lost white race (the Therns) at the Martian south pole, as noted in the section **Lost Races**. And from the 1901 general map, we notice that the southern hemisphere of Schiaparelli's Mars is dominated by a hydrologic feature, the Mare Australe (Figure 8, top half), while the northern is dominated by continental features (Figure 8, bottom half).

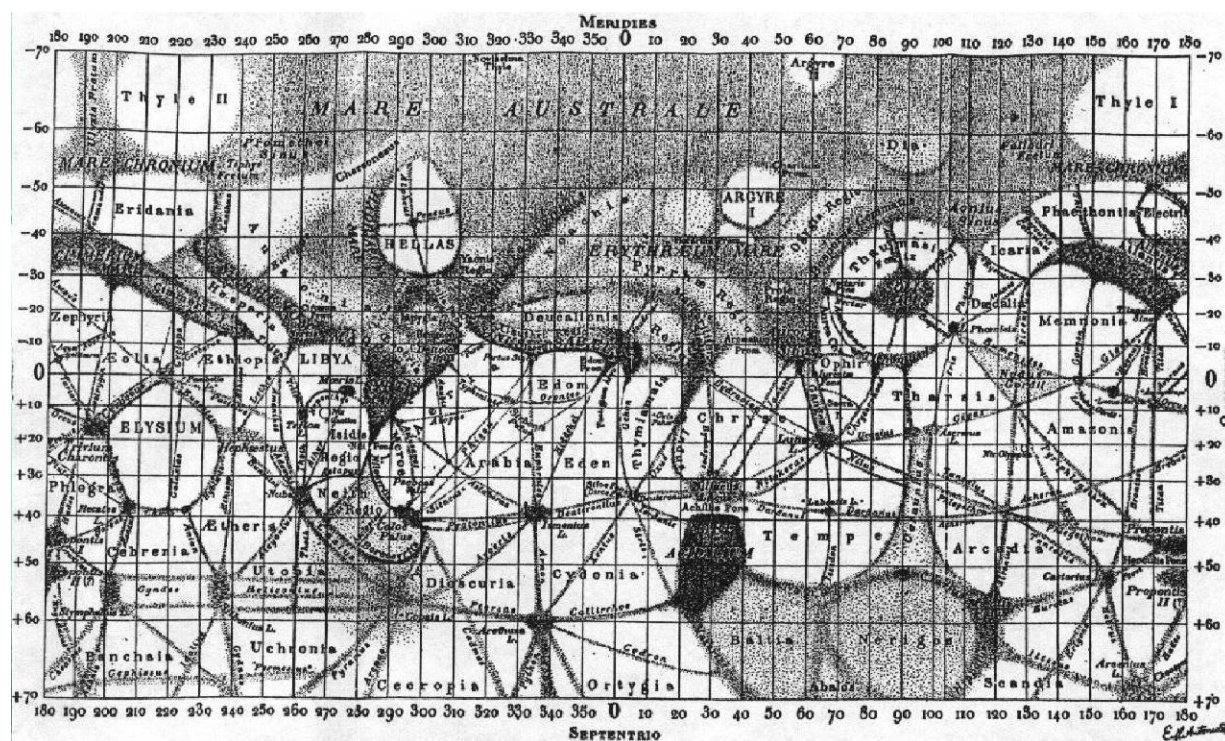


Figure 8. General Map of Mars by Flammarion and Antoniadi (after Schiaparelli), 1901.¹⁹³

The existence of the Mare Australe suggests that, in later ages, the Martian regions around the south pole retain more water than those around the north pole, and therefore are probably more important, more populous and more powerful. This in turn would make them more likely to survive the Martian Iliad than their presumably less populous and less powerful cousins near the north pole.

Thus, the Greco-Scandinavian refugees who leave the Red Planet for Freya could have come entirely from the south polar regions of Mars, including Hellas but especially the Thules (Thyle I and II). If so, that would make these remnant 'Thylians' or 'Thulians' Piper's version of the Therns. The Freyans' ancient Thulian ancestors would then have once possessed the southern ice-cap and the remaining waters of the Mare Australe, which would have given them effective control over most of Mars. Similarly, the Therns effectively ruled all of Burroughs' Mars (Barsoom) from the south pole through a religious tyranny, and they are a remnant of the white Orovar race that ruled all of Barsoom in the distant past. Moreover, it is from the southern pole that all the waters of Barsoom are controlled.¹⁹⁴ I will have more to say on this subject another time.¹⁹⁵

ENDNOTES

1. Introduction: The Freyan Mystery

1. H. Beam Piper, *Federation* (New York, NY: Ace Books, 1981), p. 276
2. *Ibid.*, pp. 231, 277
3. H. Beam Piper, *Uller Uprising* (New York, NY: Ace Books, 1983), p. 15
4. Piper, *Federation*, pp. 276, 278-279
5. *Ibid.*, pp. 202, 220, 223, 275-277, 283-284 In the *Lord Kalvan* version, Harmakros is a “cavalry captain”, but no longer related to Chartiphon. (H. Beam Piper, *Lord Kalvan of Otherwhen* (New York, NY: Ace Books, 1965), p. 24
6. Piper, *Uller Uprising*, p. 55

2. Parallel Evolution

7. Ed Naha, Introduction to *Science Fiction Aliens* (New York, NY: O'Quinn Studios, 1977), p. 6
8. Right after his arrival on Earth, Klaatu is shot by an American soldier, and taken to Walter Reed Hospital. The usual battery of tests are done on the patient, and doctors discuss the results. One says that Klaatu's “skeletal structure is completely normal. The tests show the same for the major organs—heart, liver, spleen, kidneys. And the lungs are the same as ours.” Another replies, “That must mean a similar atmosphere. Similar pressure.” (On my 2002 DVD, this scene is found in Chapter 5, Examination) The comment about the atmosphere of his home world being ‘similar’ to Earth's glosses over the fact that Klaatu appears to be *identical* to Earth humans, not just similar. Parenthetically, this brings up the question of parallel evolution, which Beam discussed—and as we will see, dismissed—in “When in the Course—”. But this B-grade element of *The Day the Earth Stood Still* is probably due to the original story, “Farewell to the Master”, in which the alien Klaatu character is described as “a man, godlike in appearance and human in form” (http://www.digital-eel.com/blog/library/Farewell_to_the_Master.pdf).
9. For the marriage and first egg of John Carter and Dejah Thoris, see Edgar Rice Burroughs, *A Princess of Mars* (New York, NY: Ballantine Books), 1963, p. 153. In *The Moon Maid*, Julian 5 of Earth travels to the Moon, where in typical Burroughs fashion he falls in love with, fights for, rescues, and marries an alien Princess; Nah-ee-lah. After they return to Earth, she bears him a son, Julian 6. (Edgar Rice Burroughs, *The Moon Maid* (New York, NY: Del Rey Books, 1992), p. 202) In the Amtor series, Carson Napier travels to Venus and falls in love with the native princess, Duare. Not having gotten past the first book in the series, I don't know if Carson and Duare marry and have children; but with Burroughs, it seems a safe bet.
10. Gardner F. Fox, *Warrior of Llarn* (New York, NY: Ace Books, 1964), p. 27 Something very similar happens in “When in the Course—”, between Roger Barron, a Terran or ‘Earthman’ from Venus, and the ‘alien’ Princess Rylla of Freya. Roger doesn't engage in hand-to-hand combat to win her, but he does lead the Terrans who render military assistance to Rylla's father, Prince Ptosphes. In effect, Roger ‘rescues’ Rylla, her father and their country. As Rylla puts it, “*But for Roger* and his friends, there would be no Hos-Hostigos. There wouldn't even be a Hostigos”. (Piper, *Federation*, p. 279, emphasis added) One might therefore deduce that this element is part of the pulp influence on Piper (see section **A B-Grade Influence**), but I believe it goes further than that. (See section 15, **Addendum.**)
11. John F. Carr, Introduction to “When in the Course—”, *Federation*, p. 200
12. John F. Carr, Introduction to *Uller Uprising*, p. viii
13. John F. Carr, *H. Beam Piper: A Biography* (Jefferson, North Carolina: McFarland & Associates, 2008), p. 174 “Piper's target market for all the science fiction he wrote was John W. Campbell's *Astounding/Analog* since he paid the highest rates and had the quickest pay-off time in the magazine business. Plus, [Beam] almost always got the Analytical Lab bonus from Campbell. To Piper, who was always broke, Campbell was the first and best market. In addition, the advances Piper was getting from Ace and Avon were far less than Campbell was paying. The best deal was to sell the first North American serial rights (for magazine publication) to *Analog*” (*ibid.*).

14. Piper, *Federation*, p. 225 I presume “approaching tenth degree” means in the mid to high 90th percentile, approaching 100%.

15. Ibid., p. 213

16. Ibid., p. 276

17. Ibid., p. 284

18. Ibid., p. 231

19. Carr, “When in the Course—” Introduction, *Federation*, p. 200

3. Spacefaring Paratimers

20. John F. Carr, Introduction to *Paratime* (New York, NY: Ace Books, 1981), pp. 11-12

21. Piper, *Lord Kalvan*, p. 248

22. Ibid., p. 2

4. Spacefaring Aliens

23. James Gunn, *Isaac Asimov: The Foundations of Science Fiction* (New York, NY: Oxford University Press, 1982), p. 38

24. Isaac Asimov, *Gold* (New York, NY: Harper Prism, 1995), pp. 243-244

25. Ibid., p. 245

26. H. Beam Piper, *Fuzzy Sapiens* (New York, NY: Ace Books, 1964), p. 12

27. H. Beam Piper, *Empire* (New York, NY: Ace Books, 1981), p. 136

28. Nine during the Federation and 14 during the First Empire is a difference of five, so just add five for each subsequent universal state. This results in 19 alien races for the Second Empire, 24 in the Third, 29 in the Fourth, and 34 in the Fifth. These should be considered a ‘baseline’ guess; the actual number may be much higher, since each universal state should contain a proportionately greater amount of galactic territory than its predecessor.

In “The Keeper”, Raud muses that “Dremna was the Great World, at the middle of everything! Dremna was the Empire.” (ibid., p. 222) I take this to mean Dremna is located at the center of the Galaxy, and rules the whole System, paralleling Trantor in Asimov’s Foundation series.

29. Piper, *Uller Uprising*, p. 49 “When we came to Uller, we found a culture roughly like that of Europe during the Seventh Century Pre-Atomic, or, more closely, like that of Japan before the beginning of the First Century P. A.” The Seventh Century Pre-Atomic runs from 1243-1342 CE, while the First Century Pre-Atomic begins in 1843 CE. So the Ullerans are comparable to Terran culture somewhere between the years 1243 and 1842 CE. The current year is AE 526, or 2469 CE. Employing some simple arithmetic, this means that the Ullerans are 1226 years behind the Terrans at the most (2469 minus 1243), and 627 years behind at the least (2469 minus 1842).

30. H. Beam Piper, *Little Fuzzy* (New York, NY: Ace Books, 1962), p. 42 On Terra, the Paleolithic Era began about 2.6 million years ago. (<https://en.wikipedia.org/wiki/Paleolithic>) Since the Fuzzies are ‘fairly early’ paleolithic, I grant them 600,000 years off that.

31. H. Beam Piper, *Fuzzies and Other People* (New York, NY: Ace Books, 1984), p. 1

32. Piper, *Empire*, p. 136 Piper does not explicitly state that all these alien races are confined to one planet, but all the ones he describes are in a pre-spaceflight state of development. Except for the Hetairans; but their home world has been destroyed, and the surviving inhabitants of their only off-world colony are slowly dying out. (Piper, *First Cycle*, p. 201)

33. Ibid., p. 240 The outnumbering should also pertain to population. In "Graveyard of Dreams", the System States Alliance is said to have contained "ninety systems, a hundred and thirty inhabited planets, [and] a hundred billion people". (Piper, *Federation*, p. 190) This means that after the System States secede, the Federation contains at least 370 human-inhabited planets (500 minus 130), though probably a great many more, given its expansion between the Seventh and Ninth Centuries. But using the 370 figure results in a Federation population of 285 billion after the SSA secedes; or a combined human population of 385 billion. One would estimate that the combined alien population of the Federation at that time to be somewhere between a few hundred million to a few billion. An approximate ratio of more than 100 to 1.

34. If we use Asimov's numbers, Beam's galaxy-spanning Fifth Empire could contain "nearly twenty-five million [human] inhabited planets". (Isaac Asimov, *Foundation* (New York, NY: Avon Books, 1966), p. 8) Assuming there are 34 planets with sapient alien races by this time, the ratio becomes 735,294 to 1. Even granting a generous 1000 alien races only brings it down to 25,000 to 1. Thus, instead of Asimov's "all-human galaxy", that of Piper would be a 'human-dominated' one. Paralleling the European domination of the globe, beginning soon after 1492 CE.

Of course, it is possible that by the time of the Fifth Galactic Empire, which rises "about 30,000 years in the future" (Carr, *Piper Biography*, p. 214), Terro-Humanity has encountered a number of alien races which possess normal-space drive, as happens in Piper's *Lone Star Planet* universe. (See **endnote 40**.) Or, known races which are relatively advanced, such as the Ullerans, may have developed it by this time, or have been given it by the humans. These aliens may therefore inhabit more than one world and/or system each. But I feel very confident that the humans will still be much more advanced, and far more populous.

35. H. Beam Piper, *First Cycle* (New York, NY: Ace Books, 1982), p. 199

36. Ibid., p. 4 Though Piper says "in the 572nd year of the Primary Dispersion", this appears to be an alternate form of Atomic Era. 'Primary dispersion' presumably refers to the first dispersion of electrons, or 'first chain reaction', in atomic fission.

37. Carr, *Piper Biography*, p. 212 Piper does not actually state when the first rocket makes it into space. Between the "Korean War, A.E. 7-10" and the "First landing on Luna, A.E. 27", he simply says "Artificial satellites, space-probes, etc." AE 15 is 1958 CE, which seems a safe estimate for the first artificial satellite. I could have used 1957, since that was when Sputnik was launched. But Beam said that "Sputnik I invalidated a lot of my near-future stuff" (ibid., p. 136), which seems to mean that he thought America would launch the first rocket into orbit, and that it would happen sometime after 1957.

If so, this could be based on an announcement in 1955 that the US would launch the first satellite before the end of 1958. "James C. Hagerty, press secretary to President Dwight Eisenhower, [had said that] The United States... would break out into space with "small Earth-circling satellites" during the eighteen-month-long International Geophysical Year that would begin July 1, 1957. It was a fantastic proposal, but coming from Americans, at least it didn't sound crazy. Rocket technology in the mid-1950s was almost good enough to reach space. If it could get just a little better—able to push a small payload to 17,500 miles an hour—that would be fast enough to overcome gravity." (James Scheffer, *The Race* (New York, NY: Doubleday, 1999), p. 4)

38. Piper, *First Cycle*, pp. 194, 200-201

39. It would probably have been much later, and by the Hetairans. This is because *First Cycle* is modeled on the Cold War; the Hetairans parallel the inventive and advanced Americans, while the Thalassans parallel the lying and backward Soviets, who used to claim all kinds of inventions as their own. "Such claims were so common in the 1950s that even the Sunday funnies parodied them. Americans were accustomed to reading claims that Russians had invented the bicycle, the electric light bulb, the telephone. Americans laughed at the peasant Russians and understood that only a backward people with a great inferiority complex could be so silly." (Scheffer, *The Race*, p. 3) Similarly, the open-society Hetairans develop space travel, then share it with the communistic Thalassans, who act in a very silly manner. "They would go to tremendous lengths to learn, in strange, sneaky ways, all sorts of things that they could have found out simply by asking." And later, "Krav-Torov...got the bright idea of having his agents try to foment trouble between the Zagannos and the Combine, but they couldn't seem to get a handle on it. The charges that they whispered in appropriate ears were so ridiculous that, instead of believing them, one gang [of Hetairans] would call the other to chortle, "Say, what do you suppose a green-skin told me you boys were up to today?" (Piper, *First Cycle*, pp. 179, 181)

However, Piper's Hetairans have no governments or nations, so there are no major or global wars to spur rapid technological advancement. Their development of space travel therefore takes much longer than on Terra. Humans developed spaceflight about a century and a half after inventing the railroad (roughly 1804 to 1957), but on Hetaira it occurs over 600 years later. "In 614 [Year of the Railroad], after an extensive testing program, a multi-step rocket

was launched from a firing stand on the north side of Skystabber, aimed to land in the middle of Shining Sister's vast ocean. It was radar tracked as it lofted out of the atmosphere, circled the planet twice, and then headed across the void separating the sister worlds." (Piper, *First Cycle*, p. 133)

Part of the reason the Hetairans go to war with the Thalassans is to avoid the development of a world government. (ibid., p. 196) Thus, if the Hetairans had succeeded in eliminating the Thalassans while surviving themselves, they would undoubtedly have resumed their slow and decentralized approach to technological advancement. It takes almost 200 years for the centralized governments of Terra to progress from space travel to hyperdrive (AE 15-192), so it should take the disunited, nongovernmental Hetairans at least 600, and possibly up to 1200 years. This means when the Terrans arrive in their system in AE 572, the Hetairans might not yet have developed hyperdrive; though one would assume they would have colonized their entire system by that time, including the depopulated Thalassa.

40. H. Beam Piper, *Four-Day Planet/Lone Star Planet* (New York, NY: Ace Books, 1958), pp. 223-224

41. Piper, *Empire*, p. 55

5. A Terran Origin

42. Carr, *Piper Biography*, pp. 212, 213

43. H. Beam Piper, *The Worlds of H. Beam Piper* (New York, NY: Ace Books, 1983), pp. 155, 170 Olva's compatriot, Kalvar Dard, is similarly foresighted. "Long after man had died out on Doorsha [Mars] and the dying planet itself had become an arid waste, the progeny of this little band would continue to grow and to dominate the younger planet, nearer the sun. *Some day, an even mightier civilization than the one he had left would rise here...*" (emphasis added) He's right, too; the mightier civilization being the Terran Federation, which surpasses its Martian forerunner by colonizing more than 500 planets, rather than just one. —Or two, counting Freya.

And although the Federation eventually collapses, civilization does not completely die out and have to start over from barbarism again. Some Federation planets remain civilized; and one of them, Marduk, goes on to create an even larger universal state; the First Galactic Empire, which itself is the precursor of the Second through Fifth Empires. The last of these apparently rules the entire Milky Way, yet still remembers that "This world is Terra, the Mother-World", "the world that sent Man to the Stars." (Piper, *Empire*, pp. 225, 241)

44. H. Beam Piper, *The Cosmic Computer* (New York, NY: Ace Books, 1963), pp. 31-32

6. An Old Martian Origin

45. Carr, *Paratime* Introduction, p. 11

46. Piper, *Federation*, p. 5

47. H. Beam Piper, *Paratime* (New York, NY: Ace Books, 1981), p. 85

48. Piper, *Federation*, pp. 17, 27

49. Piper, *Worlds*, p. 170, original emphasis

7. Lost Races

50. Carr, *Federation* Introduction, p. xxiv

51. John F. Carr, Introduction to *The Worlds of H. Beam Piper*, pp. 7-8, emphasis added

52. Carr, *Federation* Introduction, p. xii

53. Carr, *Piper Biography*, pp. 20, 79 Incidentally, the 'lost races' found in many of Burroughs' works seem to have also been inspired by Haggard. (See my forthcoming paper, "Burroughs' Source".)

54. Piper, *Federation*, p. 229

55. Ibid., p. 278 An earlier reference to "a few centuries" (ibid., p. 236) sounds about right for the *Lord Kalvan*

version of the story. There, the Zarthani civilization along the Atlantic coast of North America is “five or six centuries old”, and Tortha Karf says that “a few subsectors [such as Styphon’s House Subsector] had gotten as far as gunpowder.” (Piper, *Lord Kalvan*, p. 4) That suggests gunpowder is a relatively recent development, meaning that the Styphon’s House in *Lord Kalvan* has probably ruled the Five Kingdoms for only two or three centuries.

Incidentally, while the name ‘Sosti’ may have been chosen to evoke ‘lost’, Piper may have had another purpose in mind; one which also points to Mars. Again, see the **Addendum**.

56. Ibid., p. 217 One might object that with its –on ending, *vovaron* resembles Greek, as well as Old Martian. But this is Martian, too. For in the Paratime universe, the character Verkan Vall (unquestionably descended from Old Martians) is “the Mavrad of Nerros” (Piper, *Paratime*, p. 157) Unlike the vast majority of place names on Home Time Line, such as Dhergabar, Ravvanan, Mnrina and Thalvabar, Nerros is a Martian name which certainly looks Greek.

57. Ibid., p. 14 In addition, the Freyan written language uses “a little dingbat, like an accent-mark” for vowels (ibid., p. 231); this may be related to the “double-hook dingus” the Old Martians used as a plus sign. (ibid., p. 50)

58. Piper, *Paratime*, pp. 52, 53, 54; and *Worlds*, pp. 148, 149

59. Piper, *Federation*, pp. 229, 236

60. Ibid., p. 229 The non-settlement of the other two continents therefore suggests that there is no land-bridge between them and the continent settled by the human Freyans. In contrast, land-bridges on Terra enabled slowly-migrating humans to settle all the continents, save for Australia and Antarctica.

8. How They Get There

61. Piper, *Worlds*, pp. 150, 151, 152, 155

62. Ibid., p. 165

63. Piper, *Empire*, p. 56

64. Piper, *Federation*, p. 189, emphasis added

65. In “Genesis”, Kalvar Dard is an Army colonel from “the Frontier Guards”, who are looked down upon by Air Force personnel as “a gang of scientifically illiterate dirk-and-pistol bravos.” (Piper, *Worlds*, p. 148, 153) This suggests there are barbarians beyond the civilized regions of Old Mars. Since said regions would be centered on the crucial planetary aqueduct system, rough-and-ready frontiersmen like Col. Dard would be needed to defend them against attacks by the barbarians, who presumably attempt to raid the settled districts for water, food and other supplies.

This situation is paralleled on modern Terra after the Atomic Wars. In “When in the Course—”, Reginald Fitzurse is “a retired Terran Federation army officer” whose job was to protect the advancing frontier of civilization, while the Northern Hemisphere was slowly redeveloped after WWIV. “All the cavalry he had ever seen had been Eurasian barbarians of North Terra, the human debris of the Atomic Wars, against whom he had campaigned to protect the reclamation projects.” (Piper, *Federation*, pp. 206, 213; a policy of pacification through neutralization is also mentioned on pp. 245-246)

9. The Boer Historical Model

66. Piper, *Empire*, p. 28

67. Carr, *Federation* Introduction, p. xxix

68. Piper, *Federation*, p. 230

69. https://en.wikipedia.org/wiki/Cape_Colony

70. Piper, *Federation*, p. 276 As several people have pointed out, this seems much too far. Freya is discovered very early in the Interstellar Era, so the true figure should be more like 70 light-years, not 700. But even 70 light-years is a huge number, compared to the distance between the orbits of Mars and Terra; only about 3 light-*minutes* at closest possible approach. (<https://www.space.com/24701-how-long-does-it-take-to-get-to-mars.html>)

71. The map on the left is modified from [https://commons.wikimedia.org/wiki/File:World_map_1815_\(COV\).jpg](https://commons.wikimedia.org/wiki/File:World_map_1815_(COV).jpg). Incidentally, although Mars is called the 'Red Planet', its color is really orange. And the national color of the Dutch, as well as the Boers (as seen in the flags of the Orange Free State and Transvaal), is also orange. This of course is derived from the Dutch royal family; the House of Orange, founded by William I (the Silent), who led the Dutch to independence in 1581. (https://en.wikipedia.org/wiki/William_the_Silent) Thus, I could have depicted Mars and the Cape as being orange in color, and appropriately so.

72. Piper, *Federation*, p. 9, emphasis added We could add that the name 'Dutch' is an Old English word related to 'Deutsch', the German word for 'German'. (<http://www.dictionary.com/e/demonym/>)

73. https://en.wikipedia.org/wiki/Cape_Colony

74. Piper, *Federation*, p. 227

75. <https://en.wikipedia.org/wiki/Voortrekkers>

76. Piper, *Federation*, pp. 205, 206, 269 Piper had a historical model in mind for Reginald Fitzurse, the former Federation Army officer who threatens to kill a troublesome priest of Styphon at his altar. "Now he knew why Reginald Fitzurse's name had always stirred something in his memory... There had been a Reginald Fitzurse, centuries ago, who, with three comrades, had slain at his very altar a turbulent priest—Thomas á Becket (ibid., p. 254)

Since Adriaan de Ruyter flies reconnaissance with Fitzurse at the beginning of the story, Beam may have had a historical model in mind for him as well. For his name seems very similar to that of Admiral Michiel Adriaenszoon de Ruyter. "**Michiel Adriaenszoon de Ruyter**... (24 March 1607 – 29 April 1676) was a [Dutch admiral](#). He was one of the most skilled admirals in history, most famous for his role in the [Anglo-Dutch Wars](#) of the 17th century. He fought the [English](#) and [French](#) and scored several major victories against them, the best known probably being the [Raid on the Medway](#)." (https://en.wikipedia.org/wiki/Michiel_de_Ruyter)

Although Admiral de Ruyter was not involved with South Africa or the Great Trek—that was two centuries later—it is interesting that Piper's character appears to be of high rank, is very much involved with ships, and also seems handy militarily and politically. Adriaan de Ruyter has more money in the *Stellex* than anyone but Julio Almagro, the hyperyacht they fly recon in is owned by him, he spends the 'first contact' phase keeping watch on board the *Stellex*, he's involved in planning the conquest of Sask, he's the one who suggests sending the *Stellex* to Yggdrasil for nitrates to make gunpowder with, he also suggests that Harmakros would make an excellent ambassador to the Federation Government, and at the end of the story he's about to fly his hyperyacht with Harmakros and Nancy Patterson back to Terra, in order to secure the new Freya Company's charter. (Piper, *Federation*, pp. 208, 212, 225, 227, 228, 249, 262, 267, 282.)

Assuming Adriaan is modeled on Admiral de Ruyter, one might then infer that he subsequently has a very distinguished career; probably in interstellar trade but possibly also involving the Federation Space Navy.

77. This element is seen in Wolfgang Diehr's story, "Second Genesis". His Old Martians stop in one system with two potentially habitable planets, both of which prove unsuitable. They then take aim at another star system, which turns out to be the one containing Freya. (John F. Carr, editor, *The Rise of the Terran Federation* (Boalsburg, PA: Pequod Press, 2017), pp. 59, 60, 63, 65, 66, 68)

78. Colin McEvedy, *The Penguin Atlas of African History* (New York, NY: Penguin Books, 1980), p. 92 As McEvedy puts it, "If ten Europeans landed in West Africa it was pretty well certain that six of them would be dead—nearly all of malaria—before a year was out. And inland, mortality was even fiercer. Not for nothing was West Africa known as the White Man's Grave." (ibid.)

Venus should actually have a sickly green color, too (see next endnote), but I have matched its healthier green with that of Freya. Not just because both planets are named for goddesses of love, but because it connects Piper's characters Roger Barron and Princess Rylla, from Venus and Freya respectively, who become lovers.

79. Piper's Venus appears to be somewhat unhealthy, as well. Though he provides no details of Venusian life-forms in the THFH, he does in his Paratime tales. And given that he used the same Martian colonization concept in both series, one would guess that he also used the same swampy version of Venus. Assuming so, then among the flora of Venus in the Future History is *zerfa* leaf, presumably a narcotic like marijuana, which grows in places such as the High Ridge country. An example of Venusian fauna is the nighthound, "a creature of the hot Venus marshes". These are fast-moving, six-limbed carnivores with three-toed feet, middle limbs with eight inch long slashing-claws, talon-tipped forepaws, long lizard-like heads and infrared vision. Another is the giant poison-roach, a "two-and-a-half-foot insectlike thing" which gives off a sickening scent and is implacably hunted by the nighthounds. The poison-roach is

“deadly” to humans, which is why the nighthounds were domesticated by the first settlers. Venus also contains a virulent strain of bacteria that causes “green-vomit fever” among humans. However, it is possible that this germ is part of the poison transmitted by the giant roaches. (Piper, *Paratime*, pp. 55, 56, 64, 65, 66, 67, 68, 86, 87, 167) See also **endnote 115**, for why Beam’s Venus is a swampy hothouse.

80. As part of its ‘informal empire’ after 1815, Britain dominated the coast of Nigeria (Lagos and the Oil Rivers) all the way to Cameroon. And later, the explorer Verney Cameron signed treaties with several African chiefs in the Congo basin. He urged a British protectorate, to gain control of the natural and mineral wealth he discovered there; but the British government at the time would not consider it. (Thomas Pakenham, *The Scramble for Africa* (New York, NY: Avon Books, 1991), pp. 20, 21, 181, 182) The Congo was afterward divided between France and Belgium.

81. Piper, *Federation*, pp. 208, 211 The Gibraltar-parallel first planet discovered by the Terrans is therefore an ‘airless rock’; the second planet is ‘waterless’, and the third and fourth are ‘poisonous’ in regard to life-forms. The delta of the Niger River is a pestilential swamp, while the interior of Nigeria is a semi-arid savannah; I have represented this by making its parallel planet (the fifth) an ‘abominable’ wasteland with a poisonous atmosphere. The Congo Basin is a huge river system, and largely a dense, tropical rainforest difficult to penetrate; this has been ‘translated’ into the sixth planet being a huge water world with a dense atmosphere and crushing gravity.

82. The planet is tentatively called “Eta Stellex II”, before the Terrans decide to name it Freya (ibid., p. 226), making Freya the second planet of the star Eta Stellex. The Freyan system is the seventh one visited by the Terrans, and eta is the seventh letter in the Greek alphabet. (https://en.wikipedia.org/wiki/Greek_alphabet) Thus, the stars of the previous systems they stopped in were probably named Alpha Stellex, Beta Stellex, Gamma Stellex, Delta Stellex, Epsilon Stellex and Zeta Stellex. I have so named the planets on the map, leaving out the number of each (II, III, IV, etc.) since these are unknown.

After six failures, this means that when the Terrans discover the Freyan system, it’s their ‘lucky number seven’. Piper inserted a similar subtle touch in “The Edge of the Knife”. His character Professor Chalmers inadvertently reveals his future knowledge on “a dozen occasions”, without any major consequence. (Piper, *Empire*, pp. 16, 47) But his next one, about the assassination of Khalid ib’n Hussein, causes no end of trouble; with his students, Dean Whitburn, other faculty members, the press, parapsychologists and even the CIA. It is therefore Chalmers’ ‘unlucky thirteenth’ incident, and he is only able to solve it by getting himself committed to a mental hospital. (ibid., pp. 57-59)

83. Piper, *Federation*, p. 207

84. Robert K. Massie, *Dreadnought* (New York, NY: Random House, 1991), p. 216

85. Piper, *Federation*, p. 266

86. Ibid., p. 275

87. After a treacherous attack on the badly-outnumbered Boers, the Zulus were defeated by them in the Battle of Blood River. (https://en.wikipedia.org/wiki/Natalia_Republic) Another bit of double dealing, this time by the British, led to their defeat by the Boers in the Battle of Majuba, which ended the First Boer War. (Pakenham, *Scramble for Africa*, pp. 101-105) Later, the British tried again, but hadn’t learnt their lesson, believing the Second Boer War would be over in a couple of months. On the contrary, “It proved to be the longest (two and three-quarter years), the costliest (over £200 million), the bloodiest (at least twenty-two thousand British, twenty-five thousand Boer and twelve thousand African lives) and the most humiliating war for Britain between 1815 and 1914.” (Thomas Pakenham, *The Boer War* (New York, NY: Avon Books, 1979), p. xix)

88. Piper, *Federation*, pp. 226, 258, 275

89. By the end of the story, Hos-Hostigos includes the princedoms of Hostigos, Sask, Xanx, Dazour, Nostor, Balkron and at least one other princedom (ibid., pp. 252, 256, 265, 272, 273, 274, 280). Considering that Hostigos is in the northwestern part of the continent, while Hos-Harphax controls the whole south-central region, I get the impression that Hos-Hostigos encompasses about a quarter or a third of Hos-Harphax.

90. https://en.wikipedia.org/wiki/Natalia_Republic And Hos-Hostigos may not last very long, either. As Roger Barron puts it, “Hos-Hostigos did not exist a quarter of a year ago; who knows what it will be when your daughter succeeds you? It may be all of this world by then. It may not even be a kingdom, but a Public Thing, such as we have in the Federation.” (Piper, *Federation*, p. 279)

Incidentally, based on its South African model the planet Freya may have tremendous untapped riches, which will

be discovered when the other two continents are colonized and developed. This is because after the Great Trek, extremely rich deposits of diamonds were discovered in territory very close to the Orange Free State, and extensive reefs of gold discovered in the Transvaal. The diamonds were at Kimberley, a site near the juncture of the Orange and Vaal Rivers, and therefore claimed by the Free State. The Boers could not enforce their claim, however, and the area passed to British control. (Pakenham, *Africa Scramble*, p. 46) But the goldfields of the Rand were entirely within the Transvaal, even though their geologic seam was “around 170 miles long and 100 miles wide and appeared to contain a seemingly inexhaustible supply of gold.” (Bayly, *British Empire Atlas*, p. 147)

91. <http://www.sahistory.org.za/article/grade-8-topic-2-mineral-revolution-south-africa> To Xentos, the continent he is on is “a rough circle, with sea all around it.” (Piper, *Federation*, p. 226) I have therefore made the first, or ‘Sosti’, continent very rounded in shape, save for its northern corner. My mental image always had the second continent to the southeast, which is why I placed it there. I added an island chain to the first continent, and gave the second continent’s coast a parallel shape, to suggest that these landmasses were once connected, like South America and Africa before the breakup of Pangaea. The third continent is the one I presume to be “bigger than the Eurasian landmass on Terra” (ibid., p. 206); for that reason I gave it a somewhat similar shape, albeit rotated 90 degrees. The large island at its southern end parallels Natal; as this region was Zulu territory before the British and Boers arrived, I have called it Kholph Island, for the native humanoids of Freya. (See next section, **The Native Question.**)

92. Piper, *Little Fuzzy*, pp. 50, 96

93. https://en.wikipedia.org/wiki/Great_Trek

94. Piper, *Little Fuzzy*, p. 36 Leslie Coombes also describes their intelligence. When Little Fuzzy lights his pipe in court, Coombes says “As to this trick of using a lighter, I will undertake, in not more than thirty days, to teach it to any Terran primate or Freyan kholph.” (ibid., p. 153)

95. Derived from the Arabic term for “unbeliever”, in South Africa ‘kaffir’ became a contemptuous term for black Africans. (<https://www.collinsdictionary.com/us/dictionary/english/kaffir>) From other maps I’ve seen, the natives of ‘Kaffraria’ appear to have been the Xhosa people.

The Orange Free State and Transvaal were bordering states, but at first, they were not contiguous with the Cape Colony, which slowly expanded to meet them. This should mean that Freya’s other two continents are not connected to the human-inhabited one, but they are to each other. Probably by an isthmus, like Africa and Asia, or North and South America; which is why I included one on the second map in Figure 2.

96. H. Beam Piper, *Space Viking* (New York, NY: Ace Books, 1963), p. 131 “The captain of the free Space Viking *Damnthing* was named Roger-fan-Morvill Esthersan, which meant that he was some Sword-Worlder’s acknowledged bastard by a woman of one of the Old Federation planets. His mother’s people could have been Nergalers; he had coarse black hair, a mahogany-brown skin, and red-brown, almost maroon, eyes.”

97. This would give new meaning to Reginald Fitzurse’s words. “The first thing will be to make small-party landings on the apparently uninhabited continents—and keep the adverb firmly in mind; you can’t see everything through a telescope, and *the woods may be full of characters who throw spears first and yell halt afterward.*” (Piper, *Federation*, p. 210, emphasis added) That the African-parallel kholphs could wield spears, or at least some sort of primitive weapons, is supported by “Genesis”. When the Martians land on Terra, they run into the Hairy People. These are “beasts on the very threshold of manhood” (Piper’s version of the Neanderthals), who “had learned the use of fire, and of chipped crude stone implements—mostly heavy triangular choppers to be used in the hand, without helms.” (Piper, *Worlds*, pp. 158-159) Like the kholphs, the Hairy People are therefore a subsapient race which uses tools.

That means the kholphs would be the ‘native humanoids’ of Freya, superseded by the sapient Martians who emigrate there (Freyo- and later Terro-Humans), just as the Hairy People are supplanted by the Old Martians who emigrate to Terra. The only difference being that the Hairy People are “exterminated” by the Martians, due to the grave threat they once posed to their little band of survivors (ibid., p. 170); while the kholphs are undoubtedly not a serious threat to the Freyo- and Terro-Humans, and are probably protected by the Federation Government, like the fuzzies of Zarathustra.

Since the Terrans in “When in the Course—” don’t mention encountering the kholphs, their initial ‘small-party landings’ on the uninhabited continents were therefore apparently without incident. That the Terrans could simply miss the kholphs is supported by the case of Zarathustra. For it is only after “twenty-five years” of settlement, when there are major industries established all over the planet and the Terro-Human population has risen to “almost a million”, that the Fuzzies are finally discovered by Jack Holloway. (Piper, *Little Fuzzy*, pp. 8, 9, 16, 17, 34)

98. Piper, *Federation*, p. 206

99. Ibid., p. 223 This seemingly-optimum climate is the reason I used a healthy green color for Freya on the chart.

100. Kalvar Dard says “There’s a pretty big Arctic ice-cap, but it’s been receding slowly, with a wide belt of what’s believed to be open grassland to the south of it, and a belt of what’s assumed to be evergreen forest south of that. We plan to land somewhere in the northern hemisphere, about the grassland-forest line.” (Piper, *Worlds*, p. 149) In other words, at “the [northern] edge of the temperate zone” (ibid., p. 152). (See also the **Conclusion**.)

101. Piper, *Federation*, p. 226

102. Ibid., pp. 35, 36, 46 Piper’s decision to replace the traditional Martian surface canals with underground aqueducts appears to be smart engineering, as it would minimize the loss of precious water to evaporation and ground seepage. (See my paper, “Beam’s Mars Revealed”, section **Egypto-Martian Canals**.)

103. <https://www.holland.com/global/tourism/discover-holland/traditional/canals.htm>

104. <https://www.holland.com/global/tourism/information/history-of-the-canals-in-holland.htm>

105. Piper, *Federation*, p. 230

10. The Ancient Greek Historical Model

106. Ibid., p. 215

107. Ibid., pp. 217 (for Rylla, Hostigos and Chartiphon), 218 (for Ptosphes)

108. https://en.wikipedia.org/wiki/Greek_Dark_Ages

109. In “Genesis”, the lead Martian character Kalvar Dard refers to “our fissionables and radioactives”, and “The greatest achievement of man’s civilization, the mastery of the basic, cosmic, power of the atom”. (Piper, *Worlds*, pp. 149, 161) The crew who make it to Terra retain “three atomic lighters”, and the meteor defense system of the spaceship carried “blasters” (ibid., pp. 150, 156); presumably these are a directed-energy weapon, like the atomic blasters in Asimov’s Foundation series. In addition, the explosions of the spaceship, the “little Class-3 rocket-boat” and the “big [demolition] bomb” that kills Dard all seem nuclear. (ibid., pp. 152, 154, 168-169)

In “Omnilingual”, Beam is more subtle, but the extinct Martians’ Table of Elements includes a uranium atom. This causes Sid Chamberlain to say, “Then they did know about atomic energy. Just because we haven’t found any pictures of A-bomb mushrooms doesn’t mean—” (Piper, *Federation*, p. 48)

And a Martian Atomic War is supported by Paratime. In the First Level civilization, where the Martian colonization of Terra was a complete success, “the descendants of the population that had migrated across space had repeated on the third planet the devastation of the fourth.” On Home Time Line they had discovered the secret of paratemporal transposition and survived; but in the Abzar Sector, “They had wasted their resources to the last, fighting bitterly over the ultimate crumbs, *with fission bombs*, and with muskets, and with swords, and with spears and clubs, *and finally they had died out, leaving a planet of almost uniform desert dotted with vast empty cities* which even twelve thousand years had hardly begun to obliterate.” (Piper, *Paratime*, pp. 239, 240, emphases added)

Although the Abzar Sector is on Terra, Piper’s description of it sounds very much like what the Terrans find on Mars in “Omnilingual”. And since the Abzar people “repeated...the devastation of the fourth” planet, this certainly implies that the Old Martians themselves “wasted their resources to the last, fighting bitterly over the ultimate crumbs, [starting] with fission bombs”. That is, Mars suffered least one Atomic War, which can help explain its current desert condition. And since it occurred more than 50,000 years ago, there will be no remnant radiation for the Terrans to detect.

110. Carr, *Piper Biography*, p. 212

111. These maps, and the section which follows, are borrowed from my paper “Beam’s Mars Revealed” (2009).

112. Notice that Mars, Terra and Venus (the three life-bearing planets of Piper’s Solar System) parallel *European* peninsulas. This supports my belief that Beam mainly modeled European history for his Martio-Human Past, and Terro-Human Future Histories.

113. In “Omnilingual”, the *Cyrano* carries “the fifty-odd men and women of the expedition” to Mars, but remains “on

orbit five thousand miles off planet.” (Piper, *Federation*, pp. 4, 34) Samples of the Old Martians’ food are “rocketed up to the ship” for radio-carbon analysis, and since “Nobody seemed willing to trust the ancient elevators” in Kukan University, “it was the next evening before a couple of cars and the necessary machinery could be fabricated in the machine shops aboard the ship and sent down by landing-rocket.” (ibid., pp. 29, 35) Also, “There was work to be done enlarging the landing field for the ship’s rocket craft, and building new chemical-fuel tanks.” (ibid., p. 35)

114. Piper, *Worlds*, pp. 149-150, 152 The class-3 rocket boat is therefore a short range rocket, which launches from the great spherical spaceship which is near Luna at the time. But this brings up the option as to why the Martians didn’t just use a whole bunch of Class-2 or Class-1 rocket-boats to colonize Terra? Possibly an even better option than building the smaller spherical spaceships, postulated in the section **How They Get There**.

115. “Fictional representations of [Venus](#) have existed since the 19th century. Its impenetrable cloud cover gave [science fiction](#) writers free reign to speculate on conditions at its surface; all the more so when early observations showed that not only was it very similar in size to Earth, it possessed a substantial atmosphere. Closer to the Sun than Earth, the planet was frequently depicted as warmer, but still [habitable](#) by humans. The [genre](#) reached its peak between the 1930s and 1950s, at a time when science had revealed some aspects of Venus, but not yet the harsh reality of its surface conditions.

“In 1918, chemist and [Nobel Prize winner Svante Arrhenius](#), deciding that Venus’ cloud cover was necessarily water, decreed in *The Destiny of the Stars* that “A very great part of the surface of Venus is no doubt covered with swamps” and compared Venus’ humidity to the tropical [rain forests](#) of the [Congo](#). Because of what he assumed was constantly uniform climatic conditions all over the planet, the life of Venus lived under very stable conditions and didn’t have to adapt to changing environments like life on Earth. As a result of this lack of selection pressure, it would be covered in prehistoric swamps. Venus thus became, until the early 1960s, a place for science fiction writers to place all manner of unusual life forms, from quasi-dinosaurs to intelligent [carnivorous](#) plants. Comparisons often referred to Earth in the [Carboniferous](#) period...The Venus of Robert Heinlein’s Future History series and Henry Kuttner’s *Fury* resembled Arrhenius’ vision of Venus.” (https://en.wikipedia.org/wiki/Venus_in_fiction)

To these, we can add the Venus of H. Beam Piper. (See **endnote 79**.)

116. Piper, *Uller Uprising*, p. 16 I say ‘at least Marslike’ because the Freyans are Martians, and should therefore prefer a planet most like their home-world, if hopefully a younger and more fertile version. For that reason, I colored their postulated stop, Mimir, orange; placing it between the red of Mars and the green of Venus and Freya, though closer to the former. In size I made it larger than Mars, but smaller than Venus and Freya; another compromise.

117. I disregard the non-canon novel *Fuzzy Bones*, in which William Tuning alleges the Fuzzies’ ancestors had hyperdrive, presumably many thousands of years ago. This premise was negated by the publication of Piper’s last novel, *Fuzzies and Other People*, in 1984.

118. Piper, *Federation*, pp. 21, 32-33 The Dark Age of Greece lasted for two or three centuries, but the deduced Martian Dark Age lasts from some time before the Martians become extinct until the Terro-Humans arrive and start a new era in Martian civilization. The Martians have been extinct for “fifty thousand years” (ibid., p. 5); roughly from 48,000 BCE to 2000 CE. Before that we can assume at least several thousand years, and up to several tens of thousands, when the surviving Martians are living in a reduced state of civilization or outright barbarism. That would make the total roughly 50,000 to 80,000 years. *Fifty to eighty thousand years*; now, that’s one hell of a Dark Age!

119. Ibid., p. 21 That Dard lives during the era of the Canal-Builders is supported by his reference to the people back on Mars “keep[ing] Doorsha habitable for a few more thousand years by irrigation”. (Piper, *Worlds*, p. 155) We can therefore assume the canals, or aqueducts, are already in existence.

120. Michael Grant, *Ancient History Atlas* (New York, NY: Macmillan Publishing Company, 1971), map 15 The cartography in that book is by Arthur Banks; map 15 is a black and white chart titled “Mediterranean Mountains and Rivers”. Mine is a scanned and modified version of that base map.

The references to the expedition of Brutus to Britain come from the History of England by Milton, as summarized by Thomas Bulfinch. (Thomas Bulfinch, *Bulfinch’s Mythology: The Age of Chivalry* (New York, NY: Mentor Books, 1962), pp. 53-55)

In using the Greek and Roman models, Beam may therefore have been inspired by history books, which usually phrase certain regions of study as a ‘world’. This suggests that Piper substituted the ancient ‘world’ with the future ‘planet’, equating the Old Planet Mars with the Ancient Greek World, while the Modern Planet Terra (Terran Federation) becomes the Classical Roman World.

121. Thus, though the Old Martian voyage to Freya could be considered a ‘Great (Space) Trek’, its model is really

the Odyssey. So the 'Great Trek' by the Boer-parallel Freyans—the Martians not being actual Freyans until *after* they land and settle the planet—is the colonization of the other two continents by Freyan mercenaries, as shown previously.

Odysseus wandered for ten years after the Trojan War, mostly in the eastern Mediterranean. Brutus and his Greco-Trojan followers wandered into the western Mediterranean, and then into the Atlantic Ocean, all the way to Britain. Though I have been unable to discover precisely how long their legendary voyage took, the version in Geoffrey of Monmouth (who Milton followed) seems to suggest it was not more than a single year. However, the voyage of Brutus is arguably a much greater odyssey than the Odyssey, in distance from Greece if nothing else.

11. The Freyan Homeland(s) on Mars

122. Piper, *Federation*, pp. 213

123. Piper, *Lord Kalvan*, pp. 32, 34

124. William Sheehan, *The Planet Mars: A History of Observation and Discovery* (online book), (<http://www.uapress.arizona.edu/onlinebks/mars/chap05.htm>)

125. Piper, *Federation*, p. 2

126. http://www.cloudynights.com/item.php?item_id=1208 In addition, the red dot depicts where I believe the Old Martian city of Kukan is located. In "Omnilingual", Kukan is "a seaport on the ocean that was now Syrtis Depression" (Piper, *Federation*, p. 2), and on Schiaparelli's map, Syrtis (the triangular sea below Hellas) is bounded by the regions of Aeria, Meroe I. (Insula, or island), Isidis Regio, Neith Regio and Libya. Research reveals that the names Aeria, Isidis and Neith are all related to Ancient Egypt; Meroe refers to the Nile-island capital of the Nubians, just south of Egypt; and Libya of course is just west of Egypt. This means Kukan is most likely located in one of the regions which constitute the 'Martian Egypt'; Aeria, Isidis or Neith. This is supported by Beam's references to Egyptian archaeology in the story; the Rosetta Stone and Howard Carter of King Tut fame. (ibid., pp. 5, 45-46) And notice that Dr. Dane does in fact find her 'Martian Rosetta Stone', the Table of Elements, in Kukan. (ibid., pp. 49-55) It would therefore be appropriate for Beam to have this occur in Martian Egypt.

For these reasons, I have concluded that the most likely location for Kukan is at the Nili Pons (Nile Bridge), where the Nilosyrtis canal empties into the Syrtis Depression. This spot is where the regions of Isidis, Neith and Meroe meet. Kukan was "a big city, in its prime" (ibid., p. 24), and one would naturally expect a large city where the 'Martian Nile' once flowed into the erstwhile Syrtis Sea. Moreover, if this location is correct, that would make Kukan the 'Martian Alexandria'. The twenty-five story university discovered in "Omnilingual" might then be a combination of the Lighthouse of Alexandria, one of the Seven Wonders of the Ancient World, and the Great Library, arguably another wonder. This Martian educational skyscraper near the coast of Syrtis, which the Terrans could dub the 'Great University' of Kukan, may therefore have been a wonder of Old Mars.

Incidentally, this line of reasoning also explains Beam's reference in "Genesis" that "The detectors are deadlier than the Fourth Dynasty" (Piper, *Worlds*, p. 150). The Fourth Dynasty also seems to refer to Egypt. For during the Old Kingdom, the Fourth Dynasty built the Pyramids, the greatest Ancient Wonder. Thus, the Martian Fourth Dynasty mentioned in "Genesis" probably ruled Martian Egypt, which, like Terran Egypt, was one its planet's most ancient civilizations. (See my paper "Beam's Mars Revealed" for much more.)

127. Ibid., pp. 34, 35

128. Ibid., p. 17

129. Willy Ley and Wernher von Braun, *The Exploration of Mars* (New York, NY: The Viking Press, 1956), p. 84

130. Sheehan, *The Planet Mars* (<http://www.uapress.arizona.edu/onlinebks/mars/chap05.htm>)

131. I use the 1901 general map because Flammarion and Antoniadi added some names to Schiaparelli's map, which filled in a few blank spaces he had left. Thus, it seems to have completed the romantic view of Mars, which lasted from the later 1800s until the mid-1960s, a period of almost a century. Additionally, the 1901 map could have been the first chart of Mars seen by Piper, who was born in 1904. (However, see the **Addendum**.)

Here we should also note an interesting twist Beam seems to have put into "When in the Course—". The first language Princess Rylla uses when speaking with Roger Barron should be her own; Sosti, the Martian-appearing language whose words include *tsan vovaro* and *doru vovaron*. The second language she tries, which presumably sounds Greek enough to cause Roger to reply in Ancient Greek, should be the only other dialect on the planet—that

of the 'northern corner' civilization. Thus, the languages appear to be somewhat backward, or reversed. The Martian-appearing language should be spoken by the northern civilization, since that is where the Old Martians first landed. And the Greek-sounding language should be Sosti, as evidenced by names like Harmakros and Chartiphon. Assuming this is correct, then the 'reversal' of languages could be an example of Beam "covering his back-trail", which was a lifelong habit of his. (Carr, *Piper Biography*, p. 97; sourced from Mike Knerr, "Piper", pp. 19-20)

132. http://en.wikipedia.org/wiki/Classical_albedo_features_on_Mars; and Peter Lacey, editor, *Great Adventures That Changed Our World* (Pleasantville, NY: Reader's Digest Association, Inc., 1978), p. 18

133. http://en.wikipedia.org/wiki/Classical_albedo_features_on_Mars

134. <https://wenamethestars.inkleby.com/feature/4501>, and [https://en.wikipedia.org/wiki/Cecropia_\(disambiguation\)](https://en.wikipedia.org/wiki/Cecropia_(disambiguation))

135. Bergen Evans, *Dictionary of Mythology* (New York, NY: Dell Publishing Co., 1970), pp. 192, 231

136. <https://en.wikipedia.org/wiki/Panchaea>, and http://en.wikipedia.org/wiki/Classical_albedo_features_on_Mars

137. <http://en.wikipedia.org/wiki/Oenotria>, and Evans, *Dictionary of Mythology*, p. 90

12. On the Beauty of Freyan Women

138. Piper, *Federation*, p. 226

139. https://en.wikipedia.org/wiki/The_Birth_of_Venus

140. Piper, *Federation*, p. 226 Styphon's House keeps the Freyans "fighting among themselves" in order to more easily rule them, as well as providing a steady stream of revenue from the sale of "fire-seed", or gunpowder. (ibid., p. 237; and *Lord Kalvan*, p. 47) As for Freya's connection to war, "Although goddess of love, Freya was not soft and pleasure-loving only, for the ancient Northern races believed that she had very martial tastes, and that as Valfreya she often led the Valkyrs down to the battlefields, choosing and claiming one half the heroes slain. She was therefore often represented with corselet and helmet, shield and spear", and was essentially "Queen of the Valkyrs". (H.A. Guerber, *The Norsemen* (London, England: Studio Editions, Ltd., 1994), p. 131)

141. Guerber, *Norsemen*, p. 132; Piper, *Lord Kalvan*, p. 34; and *Federation*, pp. 214, 215, 217

142. Piper, *Uller Uprising*, p. 15

143. "In Christopher Marlowe's *Doctor Faustus* (1604), Faust conjures the shade of Helen. Upon seeing Helen, Faustus speaks the famous line: "Was this the face that launch'd a thousand ships, / And burnt the topless towers of Ilium." (Act V, Scene I.)" (https://en.wikipedia.org/wiki/Helen_of_Troy)

144. Richard Poe, *Black Spark, White Fire* (Rocklin, CA: Prima Publishing, 1997), p. 363 Piper also seems to have held this view. In *Lord Kalvan*, he has the title character mention that the Zarthani, who have Greek-sounding names, are descendants of the Aryans; and the Aryans were "blond Caucasians" who "had come out of Central Asia, thousands of years ago, sweeping west and south into India and the Mediterranean basin [where they founded the classical Indian and Greek civilizations], and west and north to Scandinavia." (Piper, *Lord Kalvan*, p. 104)

Since we've gotten to the Helen model, this might be a good place to reference the pictures on my cover page. The one on the right is a painting of Helen, by Evelyn de Morgan (1898). (https://en.wikipedia.org/wiki/Helen_of_Troy) On the left is "Freya and the Necklace" (presumably Brisingamen), by James Doyle Penrose (1890). (<https://norse-mythology.org/gods-and-creatures/the-vanir-gods-and-goddesses/freya/>) Although she appears to be a brunette in this painting, Freya is unquestionably blonde in others. These include "Freya" by John Bauer (1905), "Heimdallr returns the necklace Brising to Freyja" by Nils Blommér (1846), and "Freyja Seeking her Husband", also by Blommér (1852). (<https://en.wikipedia.org/wiki/Freyja>)

145. I presume that Piper's Old Mars had a unified planetary government, paralleling the Terran Federation after WWII. A supranational organization would almost certainly be required in order to coordinate the building of the planetary aqueduct system across the many nations of Mars. And such an organization is suggested by Percival Lowell, who believed "that the planet's nations forgot their political differences and joined forces to achieve one thing only—self preservation." (Roy Gallant, *Exploring Mars* (Garden City, New York: Garden City Books, 1956), p. 30)

I call this deduced global organization the 'Doorshan Planetary League'.

But the presumed rise of rival polar and equatorial alliances on Old Mars would probably cause the breakup of the Doorshan League, prior to a great Atomic War over control of the planet. This would parallel the rise of what I call the 'Sino-Hindic Axis', which attempts to wrest control of Terra from the Federation, causing WWIV. (See my papers "Beam's Mars Revealed" and "The Early Terran Federation".)

146. <http://kisacat.blogspot.com/2007/03/untamed-beauty.html>, and
http://www.krisandsusanna.com/Travel/Iceland/Normal_Life.htm, and
http://www.iceland-vacation-information.com/iceland_woman.html

147. <http://www.colesmithey.com/interviews/2008/06/icelandic-beaut.html>

148. Ibid. My original references on the beauty of Icelandic women dated from around 2001, but have since been misplaced. From my notes, they included an article in the *Daily News* from Iceland, which mentioned "the famed beauty of the Icelandic women", who are "among the most beautiful in the world." Another piece was in *Vogue*, which described them as "intelligent, independent, and naturally beautiful". And a couple honeymooning on Iceland posted an account of their stay, where they had "never seen so many astoundingly beautiful women...in one country. All the Icelandic women under 40 are gorgeous."

149. James Reston, Jr., *The Last Apocalypse* (New York, NY: Doubleday, 1998), p. 21

150. http://www.iceland-vacation-information.com/iceland_woman.html

151. Piper, *Federation*, p. 213

152. Carr, *Piper Biography*, p. 157

153. Ibid., p. 20

154. Ibid., p. 71

155. Beam was therefore more logical in having his characters name the planet Freya *because* beautiful women dwell there. This is in contrast to the B-grade view, whose writers populated Venus with beautiful women because of the planet's name. They usually also neglected to give Venus a male population (*Abbott and Costello go to Mars*, *The Queen of Outer Space*), thereby leaving the romantic field entirely—and conveniently—open to the Earth men who land there. Piper naturally had the sense to give Freya a male population, without which the beautiful female race would have died out, and to have romances work both ways. His main Terran (actually Venusian) male earns the love of the 'alien' princess, but a major Freyan male also earns the love of a Terran female. Indeed, despite his 'inferior' status as a medieval warrior among star-travelers, Beam's Freyan male actually gets the girl first. He marries and impregnates the Terran female before the far more advanced Terran male can marry the Freyan female.

13. Piper's Sources and Method

156. Piper, *Federation*, p. 269

157. Carr, *Piper Biography*, p. 84

158. Ibid., pp. 164-165, emphasis added

159. Piper, *Four-Day/Lone Star*, pp. 186, 188, 191

160. Peter Hopkirk, *The Great Game* (New York, NY: Kodansha America, Inc., 1994), p. 136. Ranjit Singh fought in several engagements even before becoming Maharaja, and his birth name, Buddh, was replaced with 'Ranjit' (meaning "victor in battle") by his father in consequence. (https://en.wikipedia.org/wiki/Ranjit_Singh) This makes me wonder if Piper's character, currently a mere lieutenant, is later victorious in a battle, and becomes the ruler of Fenris. For it seems significant that one chapter in *Four-Day Planet* is called "Civil War Postponed" (not 'Prevented'), and we know that nuclear weapons are used on Fenris not long afterward. The novel takes place circa AE 497, while *Uller Uprising*, which mentions the nukes, occurs in AE 526.

It is therefore possible that a full-blown civil war happens on Fenris anyway, and Ranjit Singh—by this time a higher ranking police officer, and/or recalled to active duty by the Federation military—has to deal with the situation.

After he helps put down the rebellion using nuclear weapons (possibly even ordering it himself), he could become Governor-General. This would roughly parallel what General von Schlichten does on Uller, in order to defeat the Uprising.

161. https://en.wikipedia.org/wiki/Spice_trade
162. https://en.wikipedia.org/wiki/Black_pepper, emphasis added
163. Piper, *Federation*, p. 226, emphasis added
164. https://en.wikipedia.org/wiki/Black_pepper
165. Piper, *Uller Uprising*, p. 57; and *Fuzzies and Other People*, p. 2
166. Piper, *Little Fuzzy*, p. 39
167. Piper, *Space Viking*, pp. 80, 99
168. Assuming Piper used the *piper nigrum* vine as a model for Freyan heaven-tea, it could have been a way of surreptitiously 'signing his work', subtly placing his name within the story itself. This has a precedent in "Omnilingual", where the Martian city of Kukan appears to be a transliterated form of 'Piper'. (See my paper "Beam's Mars Revealed", Appendix 4; and my forthcoming paper "Father and Son Teams in Piper", which shows yet another case)
169. Jerry E. Pournelle, Preface: Piper's Foundation, *Federation*, pp. vii, viii
170. Carr, *Piper Biography*, p. 159
171. Ibid., p. 74
172. Ibid., p. 15 (sourced from Don Coleman, "The Early Letters", pp. 255-259)
173. Piper, *Lord Kalvan*, p. 144 The words are actually spoken by "old Professor Shalgro", but he prefaces his statement by saying "I agree with Chief's Assistant Verkan". This means it is Vall's opinion.
174. Carr, *Piper Biography*, p. 2
175. Pournelle, *Federation* Preface, p. viii
176. However, the War of Spanish Succession only involved Western and Central Europe, and Piper says that WWIV is followed by "minor wars for ten years thereafter" (Carr, *Piper Biography*, p. 212). That means it essentially continues at a lower level until AE 119, which in the formula equates to 1719 AD. This is outside the range of the War of Spanish Succession. But since WWIV results in the "Complete devastation of [the] Northern Hemisphere of Terra" (ibid.), Beam probably also modeled it on the Great Northern War, which involved Eastern and Northern Europe, and ran from 1700-1721. This range corresponds to AE 100-121, thereby including the AE 119 date. Thus, WWIV appears to be a creative combination of the two wars which together engulfed all of Europe in the early Eighteenth Century.
Here I should point out that the AE 1 = 1601 AD formula works only for the first few centuries of the Federation's history. This is because Piper didn't just model the Terran Federation on the British Empire, but also on the Roman Empire. The British Empire lasted about 350 years, but Rome lasted over a thousand. Similarly, the Federation lasts over a thousand years (circa AE 31-1097), meaning its British historical models get 'stretched out' in later centuries. (See my paper "The Early Terran Federation" for a summary of early Federation events with their British or European models.)
177. Carr, *Piper Biography*, p. 213
178. Piper, *Federation*, p. 206
179. https://en.wikipedia.org/wiki/Great_Trek Again see "The Early Terran Federation", which discusses how the European historical models for later Federation events are stretched out due to the Roman layer.

14. Conclusion: Mars Solves All Problems

180. Piper, *Federation*, p. 216

181. *Ibid.*, p. 266

182. Although not necessarily due to their origin on Mars, the Freyans' possession of river-barges but lack of ocean vessels can be viewed in a Martian light. Even if their ancestors managed to save a little knowledge after crashing on Freya, navigation would probably not be included, because the Mars they left behind was a dying, oceanless desert. What surface water remained was likely more precious than gold, and Martian sailing vessels were probably uncommon, if not extinct. But the Freyan river-based civilization could be seen as a parallel of the canal-based one they left behind on Old Mars, with their present river barges being suggestive of ancient canal barges.

183. Piper, *Federation*, p. 207 Assuming the current year is AE 234, then Freya is discovered in 2177 CE. Minus 700 years or so puts the Freyans at about 1450 CE. The Fifteenth, rather than the Sixteenth Century. This is just before the Age of Exploration and Discovery, which suggests that, had the Terrans not arrived, the Freyans would soon have thrown off the religious yoke of Styphon anyway. A 'Freyan Renaissance' would have occurred, and the flowering of free inquiry and new ideas would have brought about the development of ocean-going ships, capable of reaching the other two continents.

This also seems to be the case in the *Lord Kalvan* version. Paratime Police Chief Tortha Karf says that "Aryan-Transpacific was a sector to watch. They were going forward; things were ripe to start happening soon." (Piper, *Lord, Kalvan*, p. 4) Notice that this is *before* Calvin Morrison is accidentally transposed to that sector, which unleashes a revolution in Zarthani civilization! The implication of Chief Tortha's statement is that a renaissance on Aryan-Transpacific is not only inevitable, but coming soon, with or without Lord Kalvan. This will lead to an Age of Exploration and Discovery, resulting in the spread of the east coast civilization (which parallels medieval Western European civilization) to the currently-unknown continents of Europe and Africa. (See my forthcoming paper, "A Study of Kalvan Subsector".)

184. *Ibid.*, pp. 240, 280

185. Piper, *Worlds*, pp. 149, 152

186. Piper, *Federation*, p. 211

187. Piper, *Worlds*, p. 170, emphasis added

188. *Ibid.*, p. 170

189. <http://www.blueletterbible.org/lang/lexicon/lexicon.cfm?Strongsg=G76&t=KJV>, and <http://www.thinkbabynames.com/meaning/1/Adam>

190. Piper, *Worlds*, p. 148

191. *Ibid.*, p. 149

192. That Martian Eden is the true homeland of the human race is confirmed in "Omnilingual". Beam's use of the name *Cyrano* for the first spaceship to reach the Red Planet is modeled on the fictional journey of Cyrano de Bergerac to the extra-terrestrial paradise, where he meets the prophet Elijah. (Again, see my paper "Beam's Mars Revealed"; sections **The Extra-Terrestrial Paradise of Cyrano** and **From Cyrano to the Cyrano**.)

15. Addendum

193. <https://history.nasa.gov/SP-4212/p6.html>, sourced from Flammarion, *La Planète Mars*.

194. Edgar Rice Burroughs, *The Gods of Mars* (New York, NY: Ballantine Books, 1963), pp. 77-78 The deduction that Martians undertake a 'Freyan Odyssey' would then have a connection with Barsoom. For after John Carter, another Earthman, the interestingly-named 'Ulysses' (Odysseus) Paxton, manages to reach Mars through astral projection. Thus, in Burroughs, two Earthmen 'odyssey' across interplanetary space and become Martians, while in Piper, two groups of Martians 'odyssey' across interplanetary and interstellar space to become Terrans and Freyans.

195. See my forthcoming paper, "When in the Course"—Piper's *Gods of Mars*? And I am not the only one to notice the Burroughs influence. In his story "Second Genesis", Wolfgang Diehr includes a Martian character named Ensign "Barsuum". (Carr, *Federation Rise*, pp. 60, 61, 76, 78)