

If a Russian throws a grenade at you, pull out the pin and throw it back!

INTERMISSION #122

E-zine by Ahrvid Engholm, ahrvid@hotmail.com, for EAPA, N'APA and others but not Mr Putin who is fanzine blockaded! Follow @SFJournalen's sfff/h&fandom newstweets. Take E-corflu against typ0eZ! Or Next-generation Lousy-typos Adjusting Words! Slava Ukraini! June 2022.

Editorially: First Space Exhibit, Go Turkish with Delight

As we're eagerly waiting for SpaceX's Starship to make its first real space trips, which Mr Musk now says will be in July, this will deal a lot with space and rockets. In the History Corner you'll find things about space, spaceships and such lovely stuff. We'll take you back in time to history's probably first public exhibitions on space and spaceflight, in Kiev and Moscow. But Yours Truly also recently attended a meeting with Sweden's first female astronaut, Jessica Meir (more correctly Dr Meir is a Swedish-American, with dual citizenship). There'll be a few words about that too. I earlier had lots of event reports, but the extensive history digging squeezed them out and the blasted virus stopped many events these last two years anyway. (Event reports may return later perhaps?)

I've always been a space buff, not only because of being addicted to skiffy, where rockets and alien planets play a major role. You're not a trufan if you don't like space! But I was also very active in the motley Swedish Space Movement society, I have written a lot about space (previous short story collection was centered around a Lunar colony), I knew the legendary space reporter Eugen Semitjov rather well (with a career from our 1940s pulp mag to winning our version of the Pulitzer - covered earlier in the History Corner), and I always follow what happens in space-related issues.

Right now there's more going on in space exploration and astronomy *than ever before in history!* New Mars visits with robots rumbling around on the surface like someone trying to find a parking space in London, probes to Pluto and asteroids some even grabbing gravel, new groundbreaking rockets from SpaceX landing like Tintin, NASA getting back to the Moon Real Soon Now, new telescopes like eg James Webb in space, China's new 500 metre radio telescope that just claimed to pick up alien signals, pictures of Black Holes, etc. To this comes that little Sweden may soon launch a satellite from her Lapland space base Esrange, this summer or possibly in the autumn. The rocket pad recently repaired after a fire (a smaller rocket exploded) is upgraded for micro satellites. Lapland is well suited for the polar orbits needed for ground mapping, environment watch, studies of the Auroras and certain types of communication satellites. And if lucky they may get a glimpse of Santa Claus training his flying reindeers...

There are breaking news on Nato. To the Turkish delight of the governments in Stockholm and Helsinki the Turkey president Erdogan has given up stopping the membership applications, eg with false claim about support for Kurdish "terrorism" (but we have given humanitarian aid). The Turks got a few concessions and I suspect the Americans did some arm twisting in the background too. To a degree I think this Erdogan figure used it to distract from domestic problems. The Turkish economy is in free fall with the inflation reaching +70%! He is behind in polls before next election within a year and his regime is becoming more oppressive

Anyway. The real Nato membership process will now begin. There are negotiations, protocols to be written and so on, but since it's summer vacation time I guess it will take until early autumn

But let's not forget Ukraine and the *insane Putin war!* Now the Russian government is after the bestselling - known for the apocalyptic *Metro* series - Russian sf author Dmitry Glukhovsky, who has taken an open and strong stand against this illegal war. Fortunately, he lives abroad and Russia's GeCtapo can't get to him, unless they try poison his undies. I met Glukhovsky as he a few years back talked in the Stockholm SF Bookstore. He was against Putin already then and now he says he stands by every word of condemnation of Putin. Let no shadow fall on this brave writer. We should support every Russian who dares to speak out against the bare-breasted puffed president and his criminal regime. There's another Russia beside this pompous, poohead Putin. (Eg with great space history!)

After initial major setbacks for the Putin forces, they've concentrated on Eastern Ukraine. While the yellow and blue resists with every hemoglobin molecule they have the Ruskis press on. The creeps creep forward a kilometre here, another there, simply due to having 15 times as many artillery pieces as the Ukrainians. Their tactics is to shell like hell - civilians, their houses, hospitals, malls, civilian infrastructure is of no concern - and by firepower they try to force our Ukrainian buddies to withdraw. What the yellow and blue need is artillery, rocket systems, armored vehicles. While much has been promised and even shipped, it has been very slow to arrive to the front lines.

We should have rushed them the big guns and all heavy metal February 25th! Late is better than never, however, the big guns will arrive and we must hope for the Jokkmokk (an IKEA table) to start turning. Ukrainian losses are a painful 100-200 young men every day. 14 million Ukrainians have been forced to flee their homes (6+ million abroad, of which Poland has taken half), 10 000's Ukrainian civilians have died. The mayor of Mariupol say 20 000+ have succumbed from the onslaught there, new mass graves are discovered where Putin forces try to hide their victims and there are reports that 1.2 million Ukrainians have been ethnically cleansed from the raped (occupied) area. Ukrainian citizens are taken to "filtration" (concentrations) camps in Russia - against international law which requires civilians to be protected.

Civilians are ripped of their clothes, their mobiles stolen and if the Russian SS finds any tattoo or a tweet indicating the owner isn't a fan of Putin they get "special treatment" - prison, torture, possible execution. For them Geneva just resembles that drink their drunk soldiers consume, because the Geneva convention is unknown in the "Russian World". PoWs must be executed says the Russian Disneyland "parliament" and a couple of Brits are already sentenced to death by kangaroo "courts".

It's all sad and outrageous beyond belief. Everything points to that Putin is paranoid. The latest news is that he has his bodyguards collect his poo, which is taken in briefcase back to Moscow, all to prevent health checks through his shit, and not get this asshole's DNA in foreign hands, I presume (fearing experts would find genes from rats and pigs there). <https://metro.co.uk/2022/06/11/vladimir-putins-guards-collect-his-poo-during-trips-abroad-16809780/>

There can be no clearer proof than this that *Putin-Russia is SHIT.*

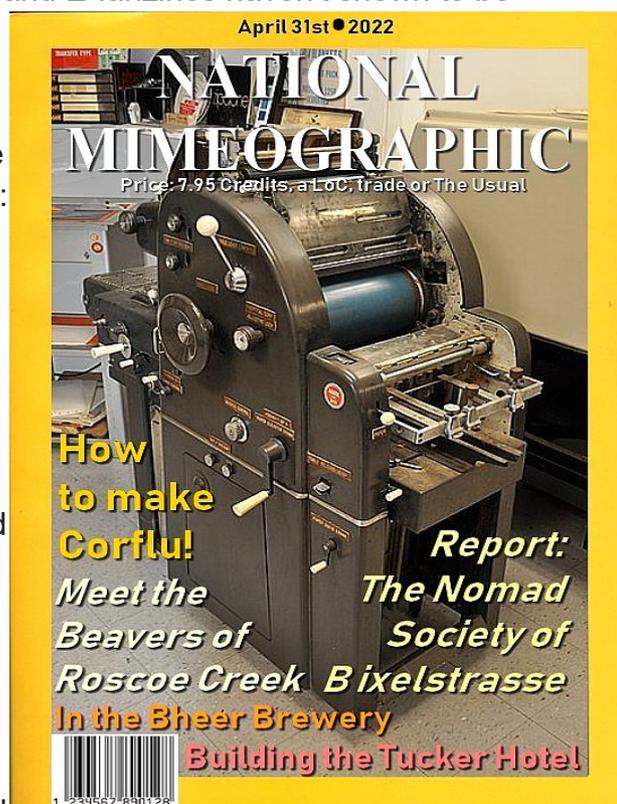
--Ahrvid Engholm

National Mimeographic Society

Fanzines used to be the backbone of fandom, but now we see little of them - not counting these pages... Sverifandom has only *one* being published on paper and E-fanzines haven't shown to be much of a saviour. There are only about two Swedish PDFzines, and while one is excellent and fulfills your wettest wishes (this one!) we used to have hundreds when the mimeo ruled and rolled in the 1980s. It has also showed to be very difficult to recruit new zines to APAs. (I stubbornly repeat: *please join!*).

So I suggest we form the *National Mimeographic Society* to promote the idea of the mimeo and fanzines. Of course, few have mimeos left and you can't get consumables like stencils and ink anymore, but we could try to keep the sweet memory of mimeographs alive! And we should support initiatives like eFanzines.com, Fanac.org, Iowa University's Hevelin collection, Swefan Tomas Cronholm and others who scan and make old mimeo fanzine gems available.

Everyone who has ever published a mimeod fanzine is automatically members of the National Mimeographic Society! And have you ever had material published in a mimeo zine you can be associate member. A LoC counts, because that proves you have received, read and reacted on a stencilled zine, and readers are important. (Electrostencilled



and dittoed fanzines would be borderline cases, but I'm prone to allow it for membership - spirit always counts!)

"National" in National Mimeographic Society of course refers to the fanation of Fandom. After all, as a fanhistorian has observed, fandom has a culture equal to a small European nation. (BTW, I have always wondered what the "nation" is in the National Hockey League? Most teams are from the nation of USA, but it was a Canadian game to start with. Is it the nation of North America?)

National Mimeographic Society could arrange lectures and demos on cons. I can for instance tell you that I did that on the fanzine and small press fair at Stockholm Culture House in 1998! I spoke about fanzine history - clearly stating its origin in sf fandom and that sf fanzines are the Real Stuff - and at the end of my talk printed a one-page oneshot in front of the audience, from a stencil I had typed previously. (AFAIK I was the last mimeod fanzine page this far produced on Sverifandom. But I'd welcome if anyone would do it again!)

Remember that the mighty mimeo was the *very first* Internet...on paper. The fanzines, the LoCs, the lettercols of the prozines, the thousands of letters any active sf fan wrote, worked like E-mail, Reddit, Twitter etc - only a bit slower and with typewriters taking the place of laptops.

The problem now is that there are probably no consumables to be found, no stencils, no ink (while some modern paper, like eg colorite, will work to print on). We should start a research centre (if someone gives us a few million quids, or we learn to print our own money!) to find out how to make our own stencils (thin paper and wax?) and find out the recipe of mimeo ink (soot and some thickener that alcohol can dissolve? - every fan knows alcohol works). And we could start publishing National Mimeographic (see illo), in glossy four-colour mimeography.

But I'm not optimistic to get mimeos back in operation. But we learn daily how lights go out in eastern Ukrainian cities as Russian guns reduce them to rubble and cut the electricity. This maniac in the Kremlin threatens the world with nuclear war.

If WWIII comes hand-cranked mimeographs will be the *only* printing system to keep the small remnants of civilisation informed. That and manual typewriters. There are interest groups caring for the typewriter - mainly non-electric ones-, typewriter museums, typewriter repair shops and I'm sure there in India or elsewhere are small factories still manufacturing manual typewriters. If not, many typewriters are still around on the second-hand market.

It should be time to recognise the mimeograph too! Or to borrow the words of Robert A Heinlein:

The mimeos must roll!

205 Days in Space

Jessica Meir is a marine-biologist and astronaut, who lived through the strange experience of starting a perfectly normal tour in the International Space Station and then see the world go mental. A virus came to Earth, and it could be from outer space, as Nobelist Svante Arrhenius speculated! From orbit she could follow how countries closed down and mathematicians made wild, wrong disaster "models" so people were incarcerated in home lockdowns, while borders, shops, schools, offices and more closed. Old Terra went totally mad. When landing after 205 days in space, Earth seemed like a new planet.

The Swedish Space Corporation recently arranged a tour for Meir, visiting half a dozen Swedish cities. Your faithful fanzine editor was there when she talked at the Royal Institute of Technology in Stockholm June 20th. They have their own Space Centre, lead by her astronaut colleague Christer



Me listening to Swe-US astronaut Jessica Meir, Stockholm, June 20.

Fuglesang, the first Swedish astronaut (two trips, 2006 and 2009), who introduced her. Vice boss of the institutes Space Centre, oldfan Carl Mikael Zetterling, eg former ed of SF Forum, was also there. The D1 Hall was nearly full, including a big group of youngsters from the organisation Astronomic Youth (an amateur astronomer group). Apart from CM Zetterling I didn't see any known fans, but Grand Old Man of Swedish space activity Sven Grahn could be observed.

Astronaut Meir began showing a film from her space adventures, showed slides and talked about both her life and career. She became totally hooked on space from a very young age, eg going to space camps for kids. Her mother is Swedish, her father Israeli, both met in the US where Jessica was born and grew up, in Maine. She did her PhD thesis in studying the breathing apparatus of animals, like seals that can hold their breath for 30 minutes and geese that fly over the Himalayas in incredibly thin and oxygen-deprived air. She then worked a few years in the space industry and for NASA, before being accepted for astronaut training in 2013, a training that took two years, being an AsCan (trainees are called that, astronaut candidates). And in April 2019 her dreams came true as she was lifted into orbit by a Russian Soyuz rocket for a long stay on the ISS, doing 157 experiments and reading Pippi Longstocking... She also did three space walks, eg to install new batteries on the ISS outside and fixing other things. You can read more about her here:

https://en.wikipedia.org/wiki/Jessica_Meir (Not mentioned there is that - from what I have read - she is also in the selected group of female astronauts who are candidates to be the first woman on the moon, with the coming Aretmis - 2025? or it may be a bit delayed.

After her long, interesting lecture there were questions from the audience. One younger member of the audience for instance asked what it takes to become an astronaut. The answer was: 1) Be a team player, 2) get good scientific education, 3) be a flexible "jack of many trades", because in space many skills are needed. She said she slept very well during the mission. You just slip into a thin sleeping bag that floats attached to a wall. Some have their arms outside which will I then fall into an outstretched positions because of how the muscles lay, but Jessica preferred to put her hands behind her head and lock the arms that way. Zero-G is a very fun and relaxing experience but it takes several days to adjust to gravity when you come back to the ground. You have difficulties walking for up to three days, not because your muscles have decayed (as they do) but because your balance system is confused. You won't be able to run for up to five days. In space you need to exercise in special machines for at least two hours every day, to minimise eg decay of muscles and skeleton. She enjoyed her mission very much, and would gladly go up there



Astronaut Meir reading Pippi Longstocking in orbit

again with eg the SpaceX Dragon capsule. She was also very impressed by what SpaceX is doing as well as others in the now step by step more "commercial" space industry. She showed several pictures of her waving a Swedish flag on ISS and other stuff, like the famous Dala Horse and a certificate afterwards given to the University of Stockholm (where she studied for a period). We were also shown pictures of southern Sweden taken from ISS - only the south, the station doesn't reach further north.

I thought it was strange nobody asked about a specific topic, so I raised my arm and asked her what she could tell about her experience from working with Russians. Cosmonauts went with her in the Soyuz and worked on the ISS. She said it went very well, parts of her training



C Fuglesang, CM Zetterling, J Meir, S Sweden (on the screen). Sorry for small pic but they moved on the other side from my position.

was outside Moscow (a town she "fell in love with"), something that BTW also included learning at least basic Russian. All on ISS has to learn each other's lingo. But now there is of course a lot of tension and she said the things happening in Ukraine now was very sad. Her mission was long before the war, it must be noted.

It's the first astronaut I've met or seen in person. On the International Astronautical Federation's convention in Stockholm in 1985, there were cosmonauts and I interviewed the US astronaut Owen K Garriott (who went up to Skylab in the 1970's) for a youth magazine. I've met Fuglesang several times - he even read and commented my first sf story collection, *Murder on the Moon!* I went to the veteran astronauts meeting in Stockholm in 2015 (reported in *Intermission*).

Unfortunately I'm getting too old to join their ranks, though I'd jump at it if someone would be whimsical enough to give me a space ticket. After all, John Glenn was 77 when he returned to orbit. And William Shatner was 90 when he made his space jump. One can always dream...

History Corner

The history space will this time be all about...space. The reason is that I stumbled upon exciting information about the first space and spaceflight exhibitions in the world, which were already in the 1920s in the then Soviet Union. There was a space exhibition in Kyiv in 1925 and a spaceflight one in Moscow in 1927.

I know it's inopportune to say something with a Russian connection, with that insane, bloody war going on. But we should note that if the Russians had engaged in space development instead of such stupid shit, everything would have been much better! For the purpose of not getting some so hot in the head that the brain boils, and to be able to cover the topic at hand, I have to leave the subject of Putin's aggression against Ukraine for now. Generally, I'm also of the belief that we shouldn't boycott "anything Russian" but those responsible, especially Putin. I suspect most Russians in secret are against the war and hope it would end. But I must leave that tragedy for a while. (Slava Ukraine!)

I happened to come across material about the world's probably first exhibitions on space! The very first was in Kyiv in 1925 and there was one specifically on space travel in Moscow 1927.

Parts of the 1920s was a time of a slight thaw in the traditional Communist oppression. Lenin had died and Stalin had not yet completely suffocated society and sent millions to death or Gulag. Odd modernist cultural forms such as futurism could flourish for a while, and we got, for example, the famous silent sf film "Aelita - Queen of Mars" (1924, <https://www.youtube.com/watch?v=yoROo4Ur49c>). After the Russian "revolution" (actually a coup), one Nikolai Tikhomirov received support from the Communist regime to start a research group to develop rocket weapons, the Gas-Dynamic Laboratory (GDL), <https://encyclopedia2.thefreedictionary.com/Gas+Dynamics+Laboratory>

And of course, one of the pioneers of theoretical spaceflight was Russian Konrad Tsiolkovsky (https://en.wikipedia.org/wiki/Konstantin_Tsiolkovsky). Works by Jules Verne and local epigones were published in Russia and the newspapers wrote articles about space travel and the future. So there was a little bubble of space interest brewing among at least intellectual Russians, though peasants in the countryside (the big majority) had their hands full with trying to survive.

"Exhibition on the Study of Outer Space" opened June 19, 1925 in "the Kyiv House of Communist Education". It consisted of five parts, one of which was devoted to the "interplanetary". In *Intermission* #119 I wrote about how The Science Fiction Club - as the name apparently was in translation - was started in Kyiv 1962 by among others Astronomy Professor Sergey Vsekhsvyatsky and biology professor Mikhail Klovov. Was this club an echo of the first space exhibition?

From <https://www.kxan36news.com/to-the-moon-with-the-tver-in-1927-in-moscow-was-recorded-on-space-flight> we extract:

The Forerunner of the Moscow exposition was the Exhibition on the study of outer space, which was opened in the Kiev House of the Communist education on 19 June 1925. Its initiators were young enthusiasts, led by mathematician Dmitry Grave /surname bad translation?/. The Exhibition consisted of five sections: astronomical, radiotelegraphy, alien life, meteorological and interplanetary.

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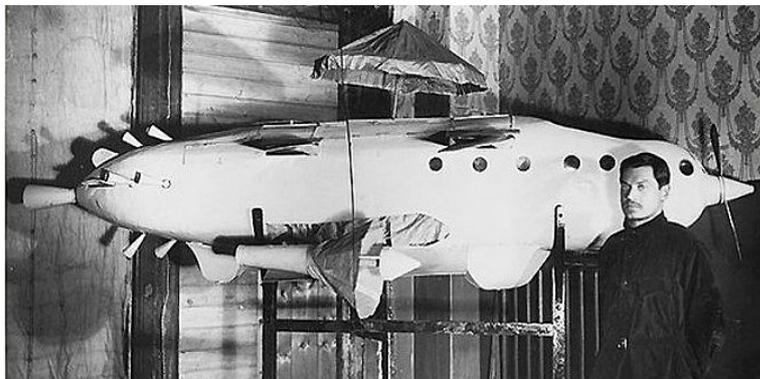
The last section of the exposition was devoted to space exploration, and presented the drawings and achievements of the engineer Alexander Fedorov. The main exhibit of the interplanetary section was a three metre model of his spaceship (it was later brought to Moscow) Kyiv exhibition was open for more than two months and closed on 1 September 1925....

The success of the exhibition in Kiev was demonstrated by Alexander Fedorov and his followers for the Association of inventors of invention (AIIZ) /more below/, and there was active public interest in the theme of space and exploration of interplanetary space. Shortly after closing of the exhibition in Kiev, the members of the Association began to prepare for more ambitious one which would be presented work not only by Soviet scientists, engineers and enthusiasts, but also their foreign colleagues. Letters with offers to participate in this event sent to all corners of the world and many received a positive response.... the Ukrainian press widely and favorably covered the /Kyiv/ exhibition. So, for example, the newspaper Proletarskaya Pravda of June 25 wrote: "... Every worker, every university student, every Soviet worker, having visited the exhibition, will find there a lot of useful things he needs today". Thus, the role of such exhibitions in those years and their significance for our entire subsequent history cannot be underestimated. But, unfortunately, history has not recorded if SP Korolev /later famous rocket engineer/ was on this exhibition or participated in the work of the "Circle for the Study of World Spaces" (reorganized in August of the same year into the "Society for the Study of Outer Space", but not registered). In those years, Korolev was more mundane, more dreaming of the sky than the conquest of the stratosphere and outer space....Sergei Pavlovich Korolev was still only a student at the Kyiv Polytechnic Institute, and it is likely that he was also able to visit this exhibition and get his first acquaintance with the ideas of cosmonautics.

About Fedorov's spaceship, which was atomic powered (!), we read:



A Fedorov, G A Field and mechanics with a model of Fedorov's nuclear-rocket ship first shown in Kyiv in 1925.



Fedorov with his nuclear spaceship.

Even by today's standards, for 1925 this project was too fantastic, when even what an atom is was obscure...However, the author did not try to be incognito and personally told visitors about his vehicle for interstellar travel, standing in front of his three metre model, made in 1:20 scale. The stand also featured a description of the ship, drawings of its longitudinal section, engine room mechanism, heat regulator and other data.

Fedorov also arranged a study circle about space in connection to the exhibition.

Wired magazine had an article, "The Space

Craze That Grippped Russia Nearly 100 Years Ago", <https://www.wired.com/2012/04/russia-space-craze/> and we read:

Newspapers proclaimed that hundreds of starships would soon push out into the cosmos. People dreamed of moon colonies that were just a few years away. Ordinary citizens organized competitions to build rockets to reach outer space. Welcome to Russia in the 1920s...Moscow university students formed the world's first spaceflight advocacy group, the Obshchestva Izucheniia Mezhpplanetnykh Soobshchenii (Society for the Study of Interplanetary Communication). The Society brought together workers, scientists, and inventors to work on ideas for living in space and traveling to other planets. One prominent member, Fridrikh Arturovich Tsander,

constructed a lightweight greenhouse intended to supply fresh vegetables to space travelers and worked on a new kind of aircraft engine that could breach the atmosphere... Tsander

was a utopian who believed that mankind's destiny was the stars. He traveled around Russia giving speeches about /on the moon we could/ construct a habitation in which living conditions would be much better than on the Earth... In May of 1924, they organized a lecture by engineer Mikhail Lapirovo-Skoblo called "Interplanetary

Communications - How Modern Science and Technology Solves This Question." Tickets to the event sold out two days prior... In 1927 /April 24/, Russian organisers put on the world's earliest international exhibition on space travel... named the "World's First Exhibition of Models of Interplanetary

Apparatus, Mechanisms, Instruments, and Historical Materials"... Between 10,000 and 12,000 attendees visited the fair over two months. At its entrance, visitors encountered an elaborate display of an imagined planetary landscape behind a large pane of glass. It featured a hypothetical planet with blue vegetation and orange soil crisscrossed by straight canals. From the sky descended a giant silver rocket, while a space-suited astronaut stood at the edge of a crater. The exhibition's organiser, Mikhail Popov, said that in entering the fair, he felt as if he had "crossed over the threshold of one epoch to another, into the space era"... By the end of the 1920s, the Russian space fad was nearing its end. The Soviet government refused to officially support the Society for the Study of Interplanetary Communication, citing the lack of scientific knowledge among its members... widespread poverty and the growing Stalinist purges began to erase the idea from most people's minds.

The 1927 exhibition was about space travel and travel to alien planets, with models on spaceships and as you saw a simulated view of an alien planet. It was organized by an association for inventors, abbreviated AIIZ, where there were propellerheads that had a lot of ideas about rockets, spacecrafts and the like. The AIIZ Society had a preview of its space ideas and inventions in early 1927:

On January 30, 1927, the inventors sent out invitations to all those who, in one way or another, were engaged in rocket technology at that time and were interested in the problems of interplanetary travel. The invitation said: "With the exhibition of the Interplanetary Department of the Association of Inventors-Inventors, I bring to your attention that on February 10, 1927, the first world exhibition of models and mechanisms of interplanetary vehicles designed by inventors from different countries is opening in the premises of AIIZ, Moscow, Tverskaya, 68. "AIIZ" knows that you are working on the problem of space flight and, probably, you will not refuse to take an active part in the exhibition organized by us in the form of your works, such as: copies of manuscripts or printed publications, as well as sketches, drawings, models, diagrams and tables.... AIIZ members firmly believed /in the/ new communist regime, in the bright future of



Panorama at the entrance of the 1927 Moscow exhibition.



The Herman Oberth corner.



One of the 1927 exhibition rooms.

mankind, soon to come under the influence of their amazing inventions. So, for example, as one of the necessary conditions for this they considered the creation and all-round dissemination of a special international language to facilitate mutual understanding of astronautics from different countries. At that time, Fedorov was already in active correspondence with the "space dreamer" K Tsiolkovsky /who directed them/ towards the cause of popularising astronautics.

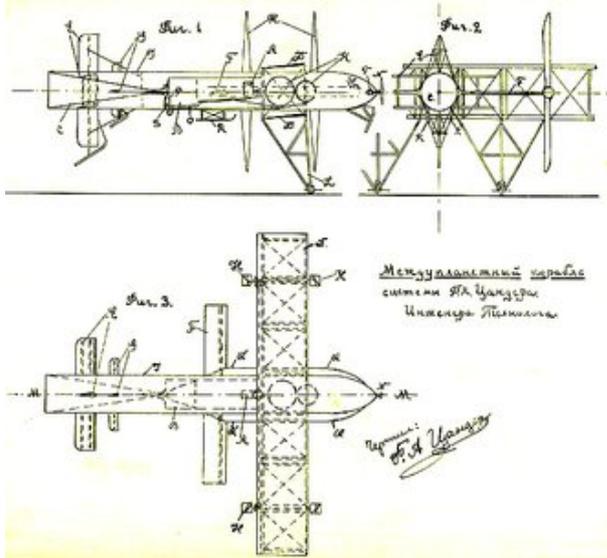


A display wall of the 1927 exhibition.

The above quote is from the below longer Russian article about the exhibition. AIIZ organised it on a voluntary basis, at their own and the expense of the members. Among the main people organising were A Fedorov, I Belyaev, G A Polevoy, Z G Pyatetsky, I P Arkhipov, A S Suvorov and O V Kholoptseva. This article is through an automatic translator:



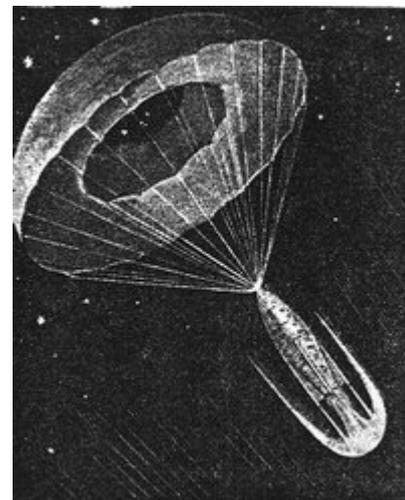
Close-up of part of the previous illo.



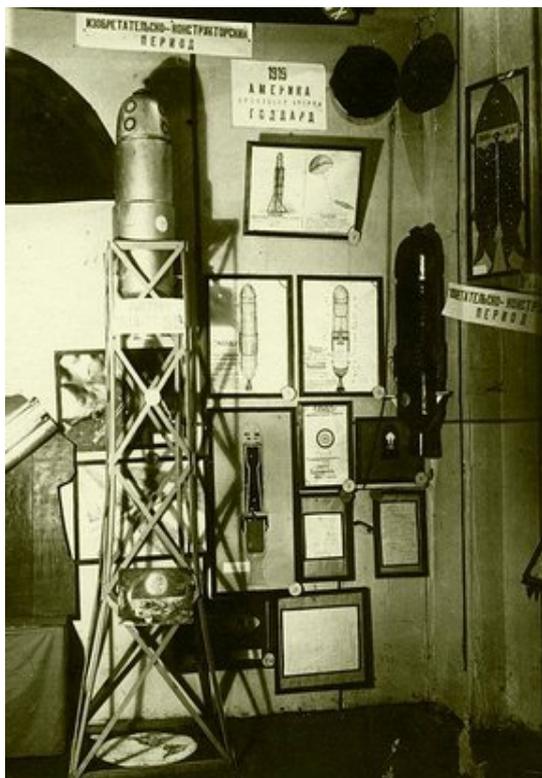
Drawing of an "interplanetary ship" by FA Zander

https://cosmatica-org.translate.goog/articles/32-pervaja-mirovaja-vystavka-mezhplanetnyh-apparatov-i-mehanizmov-1927-g.html?_x_tr_sl=auto&_x_tr_tl=en&_x_tr_hl=en (original URL <https://cosmatica.org/articles/32-pervaja-mirovaja-vystavka-mezhplanetnyh-apparatov-i-mehanizmov-1927-g.html>) snippets from this. (The automatic translation is a bit awkward at times so you must be a bit creative in editing and interpreting):

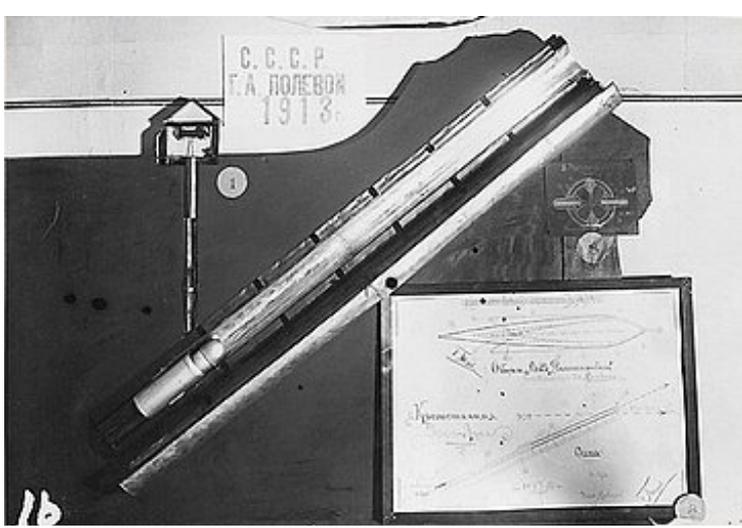
Material came from many inventors /and from/ Tsiolkovsky, and from foreign inventors, such as: America - Robert Goddard, France - Esnot-Peltri, Germany - Max Valle, Romania - Hermann Oberth, material from England and Wales was expected... Having collected the necessary funds and having spent 1.5 years (after Kyiv) there was a lot of preparatory work, organising, collecting and manufacturing exhibits and stands, informing potential participants around the world of the efforts of AIIZ, and the First World Exhibition of Interplanetary Vehicles and Mechanisms opened on April 24, 1927. The venue for the exhibition was house No 68 on Tverskaya Street in Moscow (in Soviet times it was the former Gorky Street). This is not far from the modern Mayakovsky Square, where the Association itself was located in those years. Before entering the exhibition, an information poster was displayed, and there was the so-called "moon" showcase, a three-dimensional



A spaceship re-entry, using a parachute and retro rockets at the same time.



Robert Goddard's stand at the exhibition.



The "space car" launch system by G A Field, giving an initial boost with an electro-magnetic cannon, like Verne.

installation made by a member of AIIZ, the young artist I P Arkhipov. It displayed a lunar landscape with sharp peaks of lunar mountains. At the edge of a large crater stood a silvery space rocket, next to which having climbed a rock there a little man in a spacesuit, made of plywood, settling down. And all this against the background of an endless black sky with a large blue-green disk of the Earth. It was impossible to pass by such a showcase. It was constantly crowded with people. The spectacle excited the imagination and aroused dreams of conquering the planets and outer space. Almost all the most prominent domestic and foreign practitioners and theoreticians of astronautics of that time submitted work, printed matter, and projects to the exhibition. Never before has there been such an interesting collection of works on astronautics. Special

stands were devoted to the biggest inventors. From the very first day the exhibition aroused great interest among working people and the intelligentsia. At the exhibition, from the abundance of stands, models of rockets and spaceships, photographic materials, diagrams and drawings, one simply felt dizzy. At some stands, visitors lingered for a long time, carefully studying the designs of devices unknown to them...Along with explanations at the stands by the authors of rocket and spacecraft projects themselves, the organisers of the exhibition held lectures for the visitors on astronomy, astronavigation, the theory of rocket propulsion and space flights. The exhibition was truly global. The international section of the exposition included, for example: the cannon of Jules Verne, first described by the science fiction writer in the novel *From the Earth to the Moon* in 1865 and a year later was published in Russian; the "apparatus" of the English novelist HG Wells, and many other interesting projects of rockets, interplanetary vehicles and mechanisms. So, for example, one of the pioneers of rocket technology, representing Romania in those years, but better known to us as the German scientist and inventor Hermann Oberth, sent a description of his rocket to the exhibition. Another German rocket enthusiast, propagandist of the idea of interplanetary flight, Max Valle, was able to send the exhibition only his books on astronautics and other literature with his articles. In his response to the invitation, he lamented that:

"Unfortunately, I do not yet have a rocket ship that would make it possible to overcome the space from Moscow to Munich in one hour. But I hope that such a miracle will happen in a few years. I completely share your opinion that only the improvement of technical means and an increase in the speed of our aircraft will lead to the conquest of outer space and the liberation of people from the concepts that limit them, which currently dominate society, such as: region, town, city, village, country, state. Flight into outer space will be a fusion of technology and culture. I am glad that I can cooperate for the embodiment of the Highest ideal of Humanity"... In general, the exhibition exhibited many printed works, reprints of works by Tsiolkovsky, Zander, Oberth, Esno-Peltri, Gunswind, Hohmann, Goddard, Welsh and other pioneers and popularisers of astronautics. In the stand of the work of the American scientist, professor of physics at the University of Worcester (California, USA) R Goddard, there was little material. This was most likely due to the fact that he, of course, was not present at the exhibition, as well as the fact that he had a difficult character and preferred to work secretly in a narrow circle of trusted persons. According to one of his American colleagues: "Goddard considered rockets his private preserve, and those who also worked on this were considered as poachers..." Nevertheless, the exhibition demonstrated the drawings of the rocket-aircraft developed by him, and some of his work. Austria was represented by a model and drawings of the rocket ship by Franz Ulinsky. In the description of the apparatus, work on which Ulinsky a native of an old Polish nobility family began back in 1901, it was said that he used so-called "useful dust" as fuel. The inventor approached a similar idea, namely the use of a power arising from a temperature difference, after conducting practical studies with high-capacity absorbing refrigeration units. F Ulinsky had earlier received a patent for the device of another interplanetary ship, in which the energy of the rays of the Sun is used as fuel. WG Crane's electric spacecraft was exhibited at the exhibition with a very brief description and illustrative material. For descent in the atmosphere of Earth and planets, the ship uses parachutes. As mentioned above, the exhibition was also dedicated to the 70th

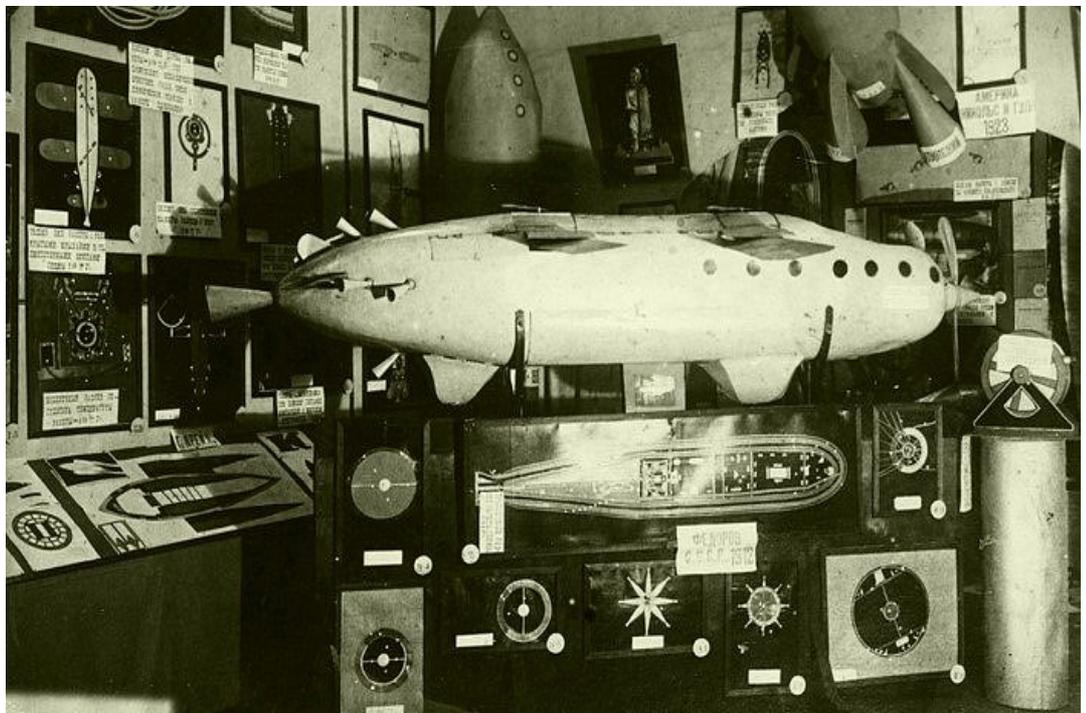


A spaceship model by Max Valier, a German who contributed. They mailed out many international invitations.

"Unfortunately, I do not yet have a rocket ship that would make it possible to overcome the space from Moscow to Munich in one hour. But I hope that such a miracle will happen in a few years. I completely share your opinion that only the improvement of technical means and an increase in the speed of our aircraft will lead to the conquest of outer space and the liberation of people from the concepts that limit them, which currently dominate society, such as: region, town, city, village, country, state. Flight into outer space will be a fusion of technology and culture. I am glad that I can cooperate for the embodiment of the Highest ideal of Humanity"... In general, the exhibition exhibited many printed works, reprints of works by Tsiolkovsky, Zander, Oberth, Esno-Peltri, Gunswind, Hohmann, Goddard, Welsh and other pioneers and popularisers of astronautics. In the stand of the work of the American scientist, professor of physics at the University of Worcester (California, USA) R Goddard, there was little material. This was most likely due to the fact that he, of course, was not present at the exhibition, as well as the fact that he had a difficult character and preferred to work secretly in a narrow circle of trusted persons. According to one of his American colleagues: "Goddard considered rockets his private preserve, and those who also worked on this were considered as poachers..." Nevertheless, the exhibition demonstrated the drawings of the rocket-aircraft developed by him, and some of his work. Austria was represented by a model and drawings of the rocket ship by Franz Ulinsky. In the description of the apparatus, work on which Ulinsky a native of an old Polish nobility family began back in 1901, it was said that he used so-called "useful dust" as fuel. The inventor approached a similar idea, namely the use of a power arising from a temperature difference, after conducting practical studies with high-capacity absorbing refrigeration units. F Ulinsky had earlier received a patent for the device of another interplanetary ship, in which the energy of the rays of the Sun is used as fuel. WG Crane's electric spacecraft was exhibited at the exhibition with a very brief description and illustrative material. For descent in the atmosphere of Earth and planets, the ship uses parachutes. As mentioned above, the exhibition was also dedicated to the 70th

anniversary of the birth of K E Tsiolkovsky. He really wanted to visit it, but for health reasons he did not manage to do that in person.

Nevertheless, Tsiolkovsky sent his greetings to the organisers and participants of the exhibition. Tsiolkovsky expressed confidence that a representative of their generation would fly in the sky. Despite the fact that the exhibition was organised on pure enthusiasm and at the private expense of AIIZ, the organisers considered it their duty to help K.E. Tsiolkovsky not only by popularising his ideas on astronautics, but also financially. However, it was far from easy to do this,



More from the Moscow exhibition. Fedorov's spaceship in the middle.

because he was very meticulous in this matter. So the organisers used a trick. They turned to him with a request to allow them to distribute his work at the exhibition, and allegedly the proceeds were sent to him. However, they themselves handed out his books to the visitors of the exhibition for free. "The throughput of the

public is 300-400 people a day," the inventors proudly reported to Tsiolkovsky. And there was something to distribute. The day before, in 1926, Tsiolkovsky republished his immortal work, *The study of outer space with jet devices*, with a usual circulation of 2000 copies. Many of the books received at the exhibition fell into the hands of interested readers. For example, the book became the reason for a long friendly correspondence between Tsiolkovsky and Mikhail Ignatievich Popov, a resident of Mytishchi near Moscow. Here is how colorfully M I Popov wrote about visiting the exhibition: "The huge showcase of one of the trading premises on Tverskaya Street is dazzlingly lit. There is a crowd in front of it. Behind the glass is a fantastic landscape of an unknown planet: orange soil, blue vegetation and straight channels. An original aircraft is attached - a huge rocket. Against the background of a black and blue, generously starry sky, an amazing inscription: 'The First World Exhibition of Interplanetary Apparatuses and Mechanisms.... Here, among numerous photographs, models and dummies showing the journey to alien worlds, Popov heard a passionate story about astronautics. The story was short. A new group of visitors entered, and the volunteer guide, throwing a pack of pamphlets to Popov, hurried over to them. At home, leafing through the brochures, Mikhail Ignatievich found among them several works by Tsiolkovsky, learned about the Association of inventors, about the language of all mankind: "AO". And if the language of "AO" seemed to Popov complete nonsense, then Tsiolkovsky's pamphlets gave rise to a sincere desire to get to know their author... Of course, in addition to the dedication of the exhibition itself to Tsiolkovsky, he had a separate display, which occupied the central place of the exhibition. Numerous works of Tsiolkovsky, photographic materials of his work, as well as a model of one of his rockets were presented on the stand next to his portrait. But the organisers of the exhibition, in addition to dedicating the exhibition to Tsiolkovsky, decided to give him a real gift. G A Polevoy and I P Arkhipov decorated the stand with a bust of the birthday man. But since Tsiolkovsky was not personally



Several spaceship drawings, and a model of one (also in close-up). The propeller is probably for atmospheric navigation when landing.

present at the exhibition, he knew nothing about it. Already in the winter, after the exhibition, in December 1927, the postman brought a luggage receipt to the Kaluga house of Tsiolkovsky about receiving some cargo from Moscow. The strange cargo was accompanied by another gift - a money order to pay for the transportation of the cargo from the station. Unpacking a large, heavy box, Konstantin Eduardovich was surprised to find his bust in it. The unusual package was accompanied by an equally unusual letter: It will be a great joy for us if this bust will be in the workshop of the greatest Architect of the Universe, and your refusal

you would upset us - the first interplanetary detachment that seeks to promote your idea as quickly as possible to the masses ... " After the closing of the exhibition, its organizers unanimously decided to donate the bust that adorned the stand with his works to Tsiolkovsky. The exhibition ran for two (!) months and was a great success. There is no doubt that after the 1927 exhibition, the popularity of the Tsiolkovsky grew even more. It certainly increased the interest of the general public for his idea and he gained many new admirers, and it led many to an understanding of the possibility and necessity of space exploration. In total, more than ten thousand people visited the exhibition. At the end of the exhibition, an "Interplanetary Corner" was organized at the exposition site and a report album of the exhibition was made. It presented data on all exhibitors, photographs and descriptions of projects. Today, this album is stored in the Memorial Museum of Cosmonautics on Prospekt Mira in Moscow, opened on the 20th anniversary of the first manned flight into space, in 1981 at the base of a monument erected earlier in November 1964, in honor of the launch first satellite. Almost all the projects of the exhibition were included in immortal work of one of the outstanding domestic and world popularizers of astronautics, Professor Nikolai Alekseevich Rynin. He did the world's first encyclopedic work on the history and theory of jet propulsion and space flight, called "Interplanetary communications". In his letter from Leningrad to the organisers of the exhibition, he wrote: "I can't help but express surprise how you, with insignificant funds, managed to organise such an interesting and rich exhibition of materials, which undoubtedly for many visitors gave rise to a number of questions of a scientific and technical nature and made them interested in astronomy, the problem of interplanetary communications, and developed a new a worldview in general".

This also influenced Soviet sf, and the papers would publish stories and articles about space (at least in the 1920s - when Stalin's power grew it became more restrictive). We read:



In the first half of the twentieth century, with the rapid development of science and technology, there was a true boom in science fiction literature. For writers, it was sometimes not so important to go into technical details, as a new dimension of human existence and consciousness

A photo book was published from the Moscow 1927 exhibition. (The pictures here are from it.)

developed. The dreams of science fiction writers and novelists were not limited by anything, because it became clear, especially after the First World War, that the coming century would be the century of new technologies, motors and vehicles with incredible possibilities for the times. And the avant-garde in this movement was of course popular science fiction literature.

As for space exhibitions in the west, the planetaries that began to pop up tended to have some space material beside more



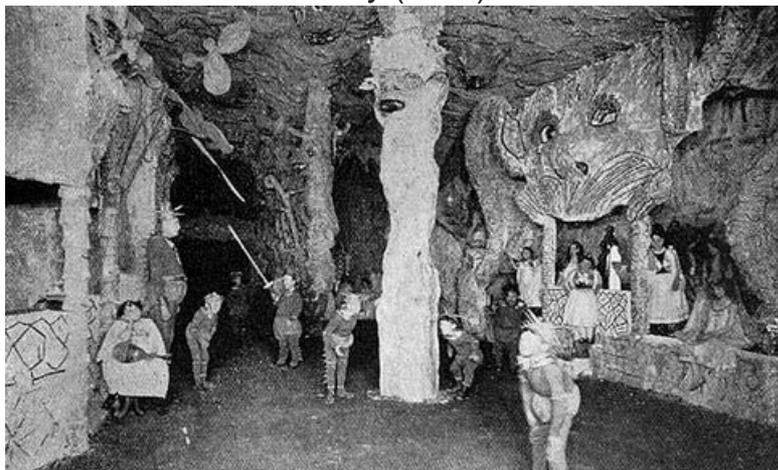
Tsiolkovsky's stand at the 1927 exhibition, though bad health prevented him from being there.

academic things on astronomy and the stars, but I don't know of any specifically about exhibiting space travel stuff earlier than the 1920s ones in the former USSR. Information from *Intermission* readers on early such exhibition is welcome! I know for instance that the Hayden Planetarium in New York City had some sort of exhibition called "A Trip to Mars" 1939-40, in conjunction with the World's Fair there (and members of the first Worldcon, Nycon in 1939, probably appreciated it). There's a short film from it here: <https://www.youtube.com/watch?v=vpyyzMDAFno> And speaking of the Big Apple, though it would be a stretch to call it an exhibition, the amusement parks of Coney Island outside NYC had a sort of "ride" called "A Trip to the Moon" opened in 1903 and running for a few years. It was originally an attraction from the 1901 Pan American Exposition in Buffalo that was moved there. Visitors entered a big model of



Rocket model by F Ulinsky. One of his ideas was to use the Sun's energy as fuel

a Jules Verne-style airship, and according to John F Kasson's *Amusing the Million - Coney Island at the Turn of the Century* (1978):



Luna dwellers and a moon cave, from the Coney Island amusement attraction "A Trip to the Moon" 1903.

...After supposedly landing on the moon, passengers left the spaceship to explore its caverns and grottoes, where they met giants and midgets in moon-men costumes, the Man in the Moon upon his throne, and dancing moon maidens, who pressed bits of green cheese upon them as souvenirs of the lunar voyage. The "Trip to the Moon" was thus an especially elaborate ride promoting a sense of fantasy and escape.

But it doesn't seem like something serious, based on scientific speculations like the ones in Kyiv and Moscow. It was a fun amusement ride. I also know that the British Interplanetary Society (founded in 1933) in the 1930s had a couple of smaller displays at the London Science Museum

for inventions they had designed related to space travel.

A little more on space before I run out of...space. It's more from the newspaper vaults of Royal library in Stockholm, which I scrutinised prior to the Virus From Outer Space. I'll translate and/or summarise (marked "/>") a few things from Swedish newspapers (and those knowing the lingo can hopefully read the original clips). One of my oldest finds was from Göteborgs Allehanda December 18, 1905:

Publisher Wahlström & Widstrand delivers a youth novel sure to interest readers among boys, and let's hope also girls- it would do them good to come to know Oskar Hoffmann. Among Martians depicts a fantastic, but very captivating trip by some Englishmen to the red planet Mars through a strange airship, as their aim is to expand the English colonies in that direction. But that comes to nothing. Mars with a culture 10 000s of years older than Earth's can fend off any earthly ambitions.

A little googling tells me the original was titled *Die fremde Welt Mars - Roman aus dem Jahre 1913* (The Alien World Mars - Novel from the Year 1913) and that Hoffmann is believed to be one of the authors behind the at the time very popular German booklet series about the "air pirate" Captain Mors. Jess Nevins covers it in more detail

<https://ratmmjess.tripod.com/mors.html>

We stay on Mars and go to Svenska Dagbladet, Aug 8 1936, in *"Inhabited worlds"*:

Is the question about life in the universe and living beings on other heavenly bodies an astronomical problem? Or a biological? Or it may not be a scientific problem at all? The last would mean it can't be decided with recognised scientific tools and thus must be thrown on that junkyard where all uncomfortable ideas tend to be hidden. /Alien life has interested both artists and scientists, in older times with unscientific speculations/ From Lucian's lying A True Tale to HG Wells' shaking battles of War of the Worlds a number of authors have in their own ways treated the subject...Professor Knut Lundmark has in an earlier work, Life in Universe (1926), made an interesting and entertaining description of the sometimes valuable but usually totally worthless descriptions of life on other planets in earlier times.../it goes/ in three directions. The first is those who treat the subject from a strict science viewpoint and seriously deal with the conditions for life in the universe from philosophical biological and astronomical facts. Then there are great many literary works by authors who don't care about the science and give their imagination a free run. Finally there are a number of utopian or satirical works written to criticise conditions on our own planet, which can only be called the best of worlds if it is the only inhabited by living, intelligent beings. /We don't know if Earth alone has life but it seems improbable. Organic life has narrow conditions, and inhabited worlds must be very few compared to uninhabited. But it requires aliens are built from the same substances as we./ If you let your imagination loose you can stipulate newts living in fire and accept beings on the surface of the sun, where the temperature is 6000 degrees, or on Jupiter with an atmosphere of ammonia and other very poisonous gases. But such speculations are of no use. We can only investigate life under the conditions we know about. All experience is also against big variations in the building blocks of organic or non-organic matter in different parts of the universe. Space to the degree with



we this far have been able to explore it is impressive with its uniformity. Its true that stars are very varied. We know of very hot and very cold suns, enormous "super-giants" and dwarf suns so small that they are hardly bigger than Earth. There are light and heavy stars. Some of them are so thin that our atmosphere is thousands of times thicker while others are so compact that a ton of their matter will fit in a thimble. Most suns perhaps travel alone in the desolate space, but we know of thousands two, three, four and other multi-systems, star groups on borderline to be planetary systems and star clusters with hundreds and in some cases hundred of thousands of members. But there is unity in the diversity and all are made of the same materials...we know of 90 elements on Earth and haven't found any new in the sky. The composition of stars is analyzed through their spectrum, where every element have certain bands and lines. The identification can be very difficult and for a while they thought that gas nebulas contained the unknown elements nebium and arktogenium. Now we know that the lines for these hypothetical substances comes from well-known substances on Earth, mainly oxygen, with a spectrum that is modified at the extremely low pressure in the nebulas. It's strange that there are the same elements everywhere, but even stranger that they are in approximately the same proportions. Quantitive spectrum analysis is yet not very developed and its result are uncertain. The meteorites that fall from the sky are of the same material as Earth's crust and have the same composition, and that even the ratio between the "isotope" mix is exactly unaltered isn't so strange. The meteorites may have the same origin as Earth and possibly come from the same nebula. /That the sun and her planets have common origin is likely, but more important is that far away stars are proportionally the same as here./ The conclusion isn't surprising. The universe is a work of a big master and as all masterpieces it has unity. The noted proportions between elements on Earth's surface have many strange and hard to explain properties. The rule discovered by Harkins is especially enigmatic, saying elements with even numbers are more common than those with uneven, a rule that also holds for the sun and meteorites. But this seemingly mystical rule probably comes from the build-up of the atoms coming from yet unknown conditions of balance. /AE: No doubt because their electron shell is full, so they are more stable.../ And these are probably universal, independent of time and space. This unity is important for life in the universe, which is built by carbon, hydrogen, oxygen and nitrogen. If the universe is constructed for a unified basic plan it seems probable that all bodies that have any chance for having living organisms are inhabited by beings of the same chemical build-up. Carbon has a special position with its ability to combine with other elements and lets this element build protoplasm. But beware of hasty conclusions. Its possible that other elements like silicon or titanium can replace coal on alien globes, where the physical, chemical, mineralogical and meteorological conditions are much different from Earth.

Nature often follows the recipe from Kajsa Warg /famous Swedish cookbook author/: You take what you got. Earthlings are created according Earth conditions, but we don't know to what degree life can change appearance from the environment. Prof Lundmark even thinks it is possible living beings can be formed from radioactive elements like eg zirconium. The fact we don't know of any "radium plants" or "zirconium animals" on Earth, he says, is that the first are very short-lived and the last can't thrive on a planet where they went under. For similar reasons you could argue that so called anaerobe bacteria, which unlike all other living beings on Earth can't stand oxygen, could have come from Venus, the "carbon dioxide planet". If life doesn't need a special "life

Sv. D. 8—36.

Bebodda världar.

ANSGAR ROTH.

Är frågan om livets utbredning i världsalltet och levande varelers förekomst på främmande himlakroppar ett astronomiskt problem? Eller ett biologiskt? Eller är det kanske äls löst något vetenskapligt problem? Det sistnämnda skulle betyda att frågan över hurud inte kan avgöras med erkända vetenskapliga hjälpmedel och följaktligen bör försvåras till den skräpkanmare, där alla obekväma idéner plägas stivas undan. Frågan om världarnas beboelighet har alltid väckt stort intresse såväl bland allmänheten som hos ättare och forskare, vilka genomgående behandlat problemen ur filosofiska eller religiösa, mera sällan ur biologiska eller astronomiska synpunkter. Problemet har, särskilt i äldre tider, ofta rötat en ovetenskaplig behandling, varvid mer eller mindre fantasiska spekulationer fått ersätta bristen på faktisk kunskap, och har därigenom råkat i misskreditt bland vetenskapsmännen. Från Lukianos' oräntligt lögnaktiga "Sanna historier" till H. G. Wells skakande bataljmalningar av "Världarnas krig" ha en lång rad fantasifulla författare behandlat problemet, var och en efter sitt huvud, varvid de i

brist på fakta oftast givit sin religiöst eller profant inriktade inbillningskraft fria tyglar. Professor Knut Lundmark har i ett tidigare arbete, "Världensymdens liv" (1926), givit en intressant och underhållande skildring av de stundom världfulla, men oftast totalt världslösa föreställningar, som man i gångna tider gjort sig om livet på andra himlakroppar. Det är inte alla säkert att de som behandlat frågan själva varit övertygade om de bebodda världarnas existens. Lundmark ursäktligen tre olika riktningar i den rika litteraturen. Den första representeras av dem som uppgett frågan från rent vetenskapliga synpunkter och på allvar granskat förhållningarna för livets förekomst i universum med stöd av filosofiska, biologiska och astronomiska fakta. Sedan finns det en stor mängd rent litterära arbeten, vilkas författare inte äls bekymrat sig om den vetenskapliga sidan av saken, utan givit sin fantasi fritt löpp. Slutligen finns ett antal antropiska eller satiriska arbeten, som skrivits i syfte att gisla förhållandena på vår planet, som endast i det falllet kan kallad den bästa av världar, om den är den e n a, som befolkas av levande och intelligenta varelser. Huruvida jordklotet är den enda platsen för livet i universum, veta vi inte med säkerhet, ehuru det ur astronomisk synpunkt förefaller utomordentligt osannolikt. Jämfohländ med grannplaneter och förhållandena i omgivningen till andra stjärnor, som i likhet

med solen kunna förmedlas vara begripligt med drabantor, visar, att vilkoren för det organiska livets förekomst äro mycket snäva och sällan uppfyllda. Jordklotet är med största sannolikhet icke något unikum, utan torde ha otaliga gelikar i universum, såväl i Vintergatan som i främmande stjärnsystem. Men de bebodda världskloten måste vara ytterst få i jämförelse med de obebodda och obebodliga. Denna slutsats vilar på förutsättningen att vilkoren för liv alltid och överallt äro desamma, så att alla levande varelser — även de som t. ex. ha sin tillvaro på ett obekant planet, som kretsar kring en av Andromedanebulosans solar — äro danade av ämnestone i stort sett samma ämnen som jordensvarelserna och existera under likartade fysikaliska, kemiska och fysiologiska betingelser. Om man ger fantasien fritt spelrum, kan man ju antaga tillvaron av salamandrur som leva i edden och medgo existensen av varelser på solens yta, vars temperatur uppgår till 6000 grader, eller på Jupiter, vars atmosfär utgöres av ammoniak och andra ytterst giftiga gaser. Men dylika spekulationer äro oruktsamma. Vi kunna endast undersöka möjligheten av liv under de vilkor, som vi känna. All erfarenhet talar dessutom starkt emot möjligheten av solars variationer i den organiska eller oorganiska materialets byggnad i olika delar av universum. Världsalltet, i den utsträckning som vi hittills kunna utforska, imponerar framför allt genom sin o n e t l i g h e t. Det är synt att stjärnornas värld företar en mycket växlande bild. Man kunna utomordentligt heta och mycket kallt, ungefär samma inbördes proportioner, jättar och dvärgarolar så små att de äro

föga större än jorden. Det finns lätta och tunga stjärnor. Många av dem äro så glesa att luften vid jordytan är tusentals gånger tätare, medan andra äro så kompakta att ett ton av materialet får rum i en fingerborg. De flesta solar gå kanske ensamma fram i den ödöliga rymden, men vi känna tusentals två-, tre-, fyra- eller mångubbla stjärnor, stjärngrupper som stå på gränsen till planetsystem och stjärnhopar med hundratals eller i vissa fall t. o. m. hundratatusentals medlemmar. Men enbart råder i mångfalden och alla himlakroppar äro uppbyggda av samma material. Samma grundämnen, som förekomma vid vår lilla planets yta och i dess atmosfär, ha påvisats i alla kroppar — planeter, kometer, meteoror, solar, stjärnor, nebulosor — från våra närmaste grannar till de mest avlägsna vintergatorna på ett avstånd av flera hundramiljoner ljusår. Vi känna 90 grundämnen på jorden och ha inte upptäckt några fler på himlen. Stjärnornas och nebulosornas sammansättning analyseras med hjälp av deras spektra, där varje element representeras av vissa karakteristiska linjer eller band. Identifieringen kan sötas på solars svårigheter, och man trodde en tid att gasnebulosornas innehöll obekanta grundämnen, nebium och arktogenium. Numera veta man att de linjer, som tillskrevs dessa hypotetiska substanser, alstras av på jorden välbekanta ämnen, framför allt syre, vars spektrum modifieras vid det utomordentligt låga tryck som råder i gasnebulosorna. Att samma element förekomma överallt i rymden är märkligt. Men ännu märkligare är, att dessa städe uppträda i ungefär samma inbördes proportioner. Den kvantitativa spektralanalysen är

ännu föga utvecklad och dess resultat osäkra. Att de från himlen nedfallna meteorstenarna bestå av samma material som jordskorn och ha precis samma byggnad, så att t. o. m. förhållandet mellan de "isotoper" beståndsdelarna av s. k. blandelementet $e o x a k t$ oförändrat, är väl inte så anmärkningsvärt. Meteoriterna ha kanske samma ursprung som jorden och härstamma möjligen från samma urnebulosa. Att solen och alla omgivande planeter äro enheltigt uppbyggda, förefaller av samma skäl naturligt — ehuru den gemensamma härkomsten ingående är bevisad. Viktigare är att stjärnornas i Vintergatan, ja även de mest avlägsna spiralnebulosor, synas vara uppbyggda av samma ämnen i nägneliga samma proportioner som jorden. Det har visat sig, att de mest fjärrbelägna vintergator ha samma genomsnittliga färg som vårt stjärnsystem, och det är därför troligt, om än icke exakt bevisat, att himlakropparna överallt i rymden äro danade av samma material och formade enligt samma lagar som i vår lilla värld av universum. Slutatsen är egentligen inte överskrakad. Universum är verket av en stor mästars hand och bär som alla mästerverk en enheltig prägel. Den på jordytan iaktagna proportionen mellan grundämnen, som håller streck även på solen och för meteoriterna. Men denna skenbart mynas lag är säkerligen betingad på atomernas inre byggnad, som regleras av ännu obekända jämviktsvillkor. Och dessa äro med all sannolikhet universella, med av tid och rum oberoende giltighet.

Världsalltets materiella enheltighet har den självrättat grundläggande betydelse för undersökningarna rörande livets utbredning i universum. Alla levande varelser på jorden, från smöban till människan, ha visats vara uppbyggda av samma grundelement, huvudsakligen kol, väte, syre och kväve. Om universum är konstruerat efter en enheltig grundplan, förefaller det sannolikt att alla himlakroppar, som över huvud ha möjlighet att härbergära levande organismer, äro bebodda av varelser av samma kemiska utöars. Kolet insäger genom sina otaliga kombinationsmöjligheter vid förenig med andra element en särskilt rik, som gör detta ämne särskilt ägnat för uppbyggande av protoplasm. Men man bör vaktas sig för hastade slutsatser. Det kan inte stämpas på jorden, där de vassa ämnen, såsom kisel eller titan, kunna ersätta kolet vid dandandet av organiska varelser på främmande världsklot, där de fysikaliska och kemiska, mineralogiska och meteorologiska förhållandena äro vitt skilda mot på jordklotet. Naturen följer i stor utsträckning Kajsa Wargs berömda recept: man tager vad man haver. Jordensvarelserna äro skapade enligt och ha anpassat sig efter förhållandena på jorden, och vi veta inte i vilken grad livet är i stånd att ändra gestalt efter miljön. Prof. Lundmark anser det t. o. m. möjligt, att levande varelser kunna formas av radioaktiva ämnen eller andra hos oss sällsynta element, t. ex. zirkon. Det faktum att vi inte känna några "radiumvarelser" eller "zirkondjur" på jordens yta, säger han, berö på det förra äro ytterst kortlivade och de senare öj i stånd att utveckla sig på en himlakropp, där de ämnen som de tarva för sin byggnad förekomma så sparsamt som på jor-

den. De ytterst små mängder av ¹⁰⁴ämnen som nu finnas på jorden äro kanske rentav rester av varelser, som en gång fallit ned på jordklotet, men ej kunnat utvecklas här, utan gått sin undergång till mötes. Av liknande skäl kan man tänka sig, att de s. k. anaeroba bakterier, som i motsats till alla andra levande varelser på jorden, icke kunna utbärdas syre, ha kommit hit från Venns, "kolnyplaneten". Om livet icke kräver någon special "livskraft", utan kan roteras av varelser av samma kemiska utöars till rent kemiska processer, kan man knappast arvisa möjligheten av att livet kan vara bundet vid andra ämnen än kolföreningar. Kunna varelser från främmande världsklot hanna på jorden eller livsfrön från vår planet överföras till andra himlakroppar? Denna fråga, som är av väsentlig betydelse för livets utbredning i universum, besvarar professor Lundmark med ja. En stor del av hans nyligen utgivna omfångsrika bok, "Livets väld", ägnas åt möjligheten av en interplanetarisk och interstellär eller t. o. m. "intergalaktisk" trafik genom världens rymden. I bokens nu föreliggande första del är det inte fråga om transport av vassa passagerare — detta intressanta kapitel kommer i den andra delen — utan blott av småpartiklar: stoftkorn, mikroorganismer, vätskeporer och livsfrön. Lära om pausermen, som Lundmark närmast övertagit från Svante Arrhenius, har varit i sannolikhet sedan det visats att de små organismerna icke blott kunna beföras genom ljuströcket och sötas bort av elektriska krafter, utan även överföras med meteorerna. Visseligen har man inte med säkerhet kunnat påvisa förekomsten av levande bakterier i meteorstnar eller kosmiska stoftpartiklar, men möjligheten av

KNUT LUNDMARK: Livets väld. Till frågan om världarnas beboelighet. Första delen. Bonniers.

force" but can be reduced to purely chemical processes, you can't exclude the possibility that it can be tied to something else than carbon compounds. Could beings from alien planets end up on Earths or life seeds be transferred? This question of big importance for life in the universe was answered by a Yes by professor Lundmark. Much of his recent, thick book *The Realm of Life* deals with the possibility of interplanetary even interstellar or intergalactic traffik through space. It is in the now published first part not transportation of adult passenger - this interesting chapter will come in the second part - but of small particles, dust, microorganisms, plant spores and seeds of life. The *p a n s p e r m i a* hypothesis of is something Lundmark has inherited from Svante Arrhenius, and has gained in credibility since it has shown that the small organisms not only can travel through the light pressure and be repelled by electric forces, but also be transported by meteorites. We haven't with certainty been able to show the presence of living bacteria in meteorite rocks or cosmic dust, but it is a possibility.

(Some words seem missing in the end, but I think it was so in the newspaper. SvD used 7 columns to a page at the time - I checked - so the 7 columns I have should be what was printed.) From life in space to perhaps the end of life on Earth. Dagens Nyheter was November 12 1945 very quick with presenting the idea of nuclear rockets, "Phantom weapons for USA - Atomic Projectiles from 'spaceships'":

The commander of the US air force, General Arnold, believes US air must become as an efficient in spying and surveillance as possible and in peacetime have access to complete and modern plans for destroying strategically important cities, industries and military targets with atomic bombs in every possible enemy state. It's from the general's official report to secretary of war Patterson concerning US air force operations during 1945. "V2 is a type of weapon that is ideal for transporting atomic explosives," Arnold writes. "If any countermeasures are developed against such projectiles moving av 4800 km/h, we must be ready to launch them closer to target, give them short flying time and make them more difficult to discover and destroy. We must be ready to launch them from unexpected directions. This can be done with real 'spaceships' that can operate outside Earth's atmosphere. It is already almost possible to construct such ships. Technical research will surely be able to in the foreseeable future. The general openly discusses possibilities of a new war and writes: "With present equipment an enemy air force can without any prior warning get pass all defences."

Interesting that he knew it was "almost possible" to construct spaceships. (The article continues but I didn't save that.) By this time it was still possible to speculate about Martians, because while it was known that Mars' atmosphere was thin (passing stars weren't dimmed much) but not how incredibly thin it was. This made it possible to speculate "Are There People on Mars?", as in Söderhamns Tidning, February 23, 1948. The new 200-inch telescope of Mnt Palomar was coming to help, which is described in the start, and then:

...The canals of Mars have never been clearly observable by anything but the human eyes. Photos taken by telescopes only shown fuzzy lines, that both can or can't be canals. What so far has stopped photos is that there is air on Mars and decreasing brightness. They have tried time-exposure, but Earth's air layers cause shaking and make the picture out of focus. With the new telescope Mars will be filmed. Every exposure last 1/16th of a second. And on some of the many frames they hope to get a picture at a moment when the shaking has stopped. The vibrations move up and down and back and forth. If you get a picture just as the move shifts they belive the canals will be seen clearly. They have been able to count and map about 800 canals with a length between 160 and 3000 km. Almost all are stright, which they have explained by that they are dug by Martians. This theory is also supported by another observation. Many canals go in a north to south direction. Others cut through in 45 to 90 degrees angle and almost always they continue at the other side. A river never does that. Some 'canals' go to the white caps at the North and South Poles of Mars. They retreat during summer, as if it's snow melting. In spring a blue-green colour emerges - possibly vegetation - from the poles.. It is known that Mars is a very dry planet, and some astronomers believes the canals are built for irrigation. As snow melts in the spring the vegetation follows the water form the poles. They hope the new

FANTOMVAPEN FÖR U.S.A.
Atomprojektiler
från "rymdskepp"

TT fr. Reuter. WASHINGTON, söndag.
 Chefen för Förenta staternas flygvapen, general Arnold, anser att det amerikanska flyget bör ha ett så effektivt spioneri- och under-
 rättelseväsen som möjligt och under fredstid förfoga över full-
 ständiga och moderna planer på att med atombomber och andra
 vapen förstöra alla strategiskt viktiga städer samt industriella
 och militära anläggningar i varje tänkbar fiendestad.

Detta framgår av generalens officiella rapport till krigsminister Patterson rörande det amerikanska flygets operationer under år 1945. "V-2 är en vapentyyp som idealiskt lämpar sig för transport av atomsprängämnen, eftersom det skulle bli ytterst svårt att frambringa något effektivt försvar mot den", skriver Arnold. "Om det utvecklas några försvarsmedel mot sådana projektiler som rör sig med en hastighet av 4.800 km i timmen, måste vi vara redo att sända i väg dem närmare målet, ge dem kortare flygtid och göra dem svårare att upptäcka och förstöra. Vi måste vara redo att sända i väg dem från oväntade riktningar. Detta kan göras med verkliga 'rymdskepp', som kan operera utanför jordens atmosfär. Det är redan nu nästan möjligt att konstruera sådana skepp, och den tekniska forskningen kommer säkert att kunna göra det inom överskådlig framtid."

Generalen diskuterar öppet möjligheten av ett nytt krig och skriver: "Med nuvarande utrustning kan en fientlig flygmakt utan föregående varning passera alla tidigare tänkta för-





Världen och Vi

Finns det människor på Mars?

Det väldiga nya teleskopet på Mount Palomar i Kalifornien, som nu börjat tas i bruk, väntas kunna ge svar på frågan om vi lever i ett universum utan gränser. Det är endast de största vetenskapliga gräna detta teleskop skall ägnas åt.

Med detta teleskop, vars fem-meterspegel är dubbelt så stor som världens hittills största, ämnar astronomerna till att börja med filma »kanalerna» på Mars, vars gåta så länge intresserat vetenskapen.

Vad astronomerna väntar sig av det nya jätteteleskopet skildras av William Skilling i en astronomisk tidskrift, »Sky and Telescope».

Kanalerna på Mars har aldrig kunnat uppfattas klart annat än av människoögat. Fotografier som tagits med hjälp av teleskop visar endast suddiga linjer, som både kan och inte kan vara kanaler. Vad som hittills hädrat fotografering med gott resultat är att det finns någon luft på Mars, vilket minskar ljusstyrkan. Man har försökt med exponering på tid, men jordens luftlager orsakar dallringar och gör bilden oskarp.

Med det stora nya teleskopet skall man filmfotografera Mars. Varje bildexponering varar 1/16 sekund, och på någon av de många riktorna på filmremsan hoppas man få en bild

just i det ögonblick dallringen uppstår. Vibratorerna rör sig uppåt och nedåt, och från ena sidan till den andra. För man en bild just som rörelseriktningen växlar, tror man att kanalerna skall framträda tydligt.

Man har kunnat räkna och kartlägga omkring 800 kanaler av en längd mellan 100 och 3.000 km. Nästan alla är raka, vilket man velat förklara med att de är anlagda av »Marsmänniskor».

Denna teori stödes också av en annan iakttagelse. Många av kanalerna går i nord-sydlig riktning. Andre skär dem i 45 till 90 graders vinkel och nästan alltid fortsätter linjerna rakt på andra sidan skärningspunkten. En flod gör det aldrig.

Linjerna tycks också utgöra segment av storcirkeln, ett begrepp som tillhör navigationsvetenskapen. En storcirkel är den kurs ett fartyg följer vid färd över ett världsbol.

En del »kanaler» går fram till de vita hättorna vid nord- och sydpolen på Mars. Dessa hättor drar sig tillbaka om sommaren, och om de vore snö som smälter. På vintern utgår en blågrön färg — möjligen vegetation — från polerna. Det är sänt att Mars är en mycket torr planet, och vissa astronomer tror att kanalerna är anlagda för bevattningsändamål. De snösmältningen

börjar om våren, följer vegetationen vattnets väg från polerna.

Om denna teori är hållbar är vad man hoppas kunna avgöra genom fotografering med det nya jätteteleskopet.

En annan gåta, som man hoppas få svar på är vad som händer i universums »yttersta gräns», d. v. s. vid de punkter som utgjort en gräns för människans observationsförmåga hittills. Palomarteleskopet kommer att flytta den »yttersta gränsen» dubbelt så långt bort.

Den stora gåtan där är nebulosorna, de stjärnsamlingar, som vardera är lika stora som Vintergatan. De är knappt synliga på fotografi. Enstaka stjärnor kan inte urskiljas på dem.

Varje nebulosa tycks vara på väg bort från jorden med fruktansvärd hastighet, 3.000 km. i sekunden eller mer. Inte ens en atombombexplosion sker med sådan hastighet.

Senan detta fenomen upptäcktes för 20 år sedan, har vetenskapen frågat: Håller universum på att utvidga sig? Eller exploderar det?

Den meterteleskopet kan ge svaret. Det kommer att minska avståndet till dessa stjärnvärldar till hälften, och det kommer att se nya stjärnvärldar, om det finns sådana, dubbelt så långt ut i världsrymden. Därupe kanske man finner svaret på de båda frågorna.

Om dessa ännu avlägsnare världar rör sig från jorden, är deras hastighet ännu högre. Ju större avstånd, desto större hastighet, är regeln. Detta innebär hastigheter, som närmar sig ljnets. Därför kommer en mindre del av deras ljus att nå fram till teleskopets öga. Denna ljusreduktion blir 30 till 40 procent.

Om denna ljusreduktion kan konstateras, avser man att teorin om universums explosion bekräflats, och man kan ägna sig åt att söka efter orsaken.

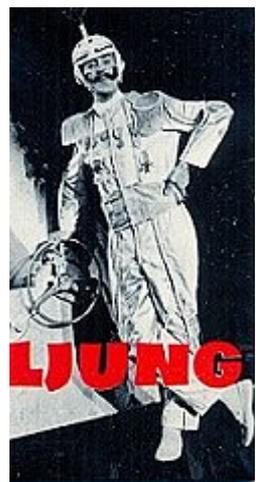
I annat fall får man söka efter en annan förklaring till gåtan.

giant telescope will tell if this theory holds. Another riddle they hope will be answered is what happens at the "ultimate limit" of the universe, ie at the points that limit human observations. The Palomar telescope will double the "ultimate limit". The big mystery are the nebulas, the star collections each as big as the Milky Way. They are hardly visible on photos. Single stars can't be seen in them. Each nebula seems to be leaving us with a terrible speed, 3000 km/s or more. Not even an atomic explosion happens with such a speed. After this was discovered 20 years ago science have asked: Is the universe expanding? Or is it exploding? The 5-metre telescope will half the distance to these star worlds and it will see new star worlds, if there are such, twice as far out in the universe. The answer to both riddles may be out there. If these worlds even further way from Earth also move the rule says their speed will be even higher. The bigger the distance, the higher the speed. It'll mean speeds approaching the speed of light. It means a smaller portion of the light will reach the eye of the telescope.

The reduction will normally be 30 to 40 percent. If this light reduction is confirmed, they believe the theory of the universe exploding is confirmed, and they can begin looking for the cause.

Not that I know the difference between the universe expanding and exploding (maybe "exploding" is just a faster expansion?). In later year astronomers have to their amazement found the expansion is accelerating! More Mars. Dagens Nyheter had found a Swedish Martian! "Swedish Martian will be engaged in London", April 13 1948:

Two Englishmen in theatre are here watching Stockholm in the spring sun: it's the London director Charles Hickman and London actor Roy Dean here on a quick visit. Mr Rickman is on the hunt for a tall and handsome Swedish actor with acceptable English pronunciation who would consider accepting top billing in a new play, "The Ambassador from Mars", to be staged in London sometime in the spring. With some good will this task of playing a Martian could be a compliment to Swedish acting. Mr Dean, who has taken time off from his engagements in theatre, radio and TV, says he is especially fond of radio - rehearsals are through in 3-4 days. TV is much more expensive: four weeks preparation for half an hour of appearance. But actors don't any longer have to stand the death-like make-up you have seen in pictures from TV recordings; the apparatus has now been perfected to the degree that no make-up at all is needed. BTW, the two gentlemen were enthusiastic about the achievements by Mai Zetterling. She'll shortly be in her latest English film "Sarabande for Dead Lovers" playing against Stewart Granger / <https://www.imdb.com/title/tt0040758/> , historical costume drama/ We can only wish them luck in the hunt for a typical Swedish Martian. Caption: Actor Roy Dean, to the left, and director Charles Hickman.



Martian Ljung as spaceman

Unfortunately I can't find any info about this play, so I guess they never found their Swedish Martian and it was cancelled. I would have suggested they could try the tall comedian - used to play very strange parts - Marti(a)n Ljung! A real star who had just begun his career at the time.

Martians or not, the real space age began later (and we also learn about a French sf film). We read in Svenska Dagbladet, November 6, 1957, how pranksters were early on the move, "Re. Sputnik":

Svensk Marsmänniska får Londonengagemang



Skådespelaren Roy Dean, till vänster, och regissören Charles Hickman.

Två engelska teatermänniskor är här och tittar på Stockholm i värsol: det är Londonregissören Charles Hickman och den skådespelaren Roy Dean som har kommit över på en snabbvisit. Mr Rickman är på jakt efter en lång och ställig svensk skådespelare med acceptabelt engelskt uttal som skulle kunna tänkas åta sig huvudrollen i en ny pjäs, "The Ambassador from Mars", som kommer upp i London någon gång på vårkanten. Med litet god vilja kanske man kan få detta uppdrag att spela Marsmänniska till en komplimang för svensk skådespelarkonst.

Mr Dean, som har tagit sig ledigt från sina teater-, radio- och televisionengagemang, berättar att han är speciellt förtjust i radioframträdanden — repetitionerna är undanstökade på tre, fyra dagar. Däremot är television åtskilligt mera påkostade: fyra veckors förberedelser för en halvtimmes framträdande. Men den dödeliknande make open som man sett på bilder från televisioninspelningar behöver de stackars skådespelarna tydligen inte dras med längre; apparaterna har nu fulländats därhän att det inte behövs någon sminkning alls. För övrigt var båda herrarna överförtjusta i Mai Zetterlings prestationer. Hon kommer nu snart i sin senaste engelska film, "Sarabande for Dead Lovers", där hon spelar mot Stewart Granger.

Och så är det bara att önska lycka till på jakten efter typiskt svenska Marsmänniskor.

A Sputnik prank recently took place in Montbrison in Loire. There were much worry among the local gendarmes, who sealed the place off, until the joke was revealed. What happened was that a hollow metal rod with 58 cm diameter and inscriptions of Russian letters fell down on the main road. When the gendarmes disarmed the piece they discovered four electric batteries that produced a sound that resembled Sputnik's "bip-bip". Later it was found that the thing had been dropped from an aeroplane by a couple of honorable persons who wanted to film how it fell through the air to let the proceeds from the film go to the elderly of Loire... * A shiny metal globe with the inscription "Sputnik USSR" has fallen down near the little village Höland in mid Norway. The globe was made of aluminium, had a weight of 300 grams and a diameter of 30 cm. It contained no instruments at all. According to the finders it seems like the sphere had hung under a balloon. The police don't yet know who the joker is who launched the fake satellite. * The singer Charles Trenet is right now writing an operetta set in an sf environment, "The Fantastic Rocket". He has already 14 pages of a score and is also writing the libretto together with Raymond Vici. It is expected to open in November on the Chatelet theater in Paris. The singer intends to leave his Paris audience for a while and settle on the Canaries to finish the operetta.

Unfortunately I can't find any info on "The Fantastic Rocket" so it may have been canned too.

Now, taking about space this has now already taken up too much of that! I know how much you want more and more *Intermission* but thish must soon end, for this time. I have more stuff on space - and Musk promises to launch Starship RSN! - so I may return to the subject, and maybe give you a ride through Coney Islands "Trip to the Moon".

Now something for the APAs I let this sneak into. First EAPA, the N'APA, and...Why don't you do a fanzine and join! Doing PDFs is easy and fun! Fanzines should reclaim their position as the backbone of fandom. Twitter-Schmitter, Fjuckbook and such are totally inferior. Smell the (virtual) corflu! See the mimeo ink stains spread! Publigo, ergo sum! I publish, therefore I am.

Mailing Comments

Henry Grynsten: Another great issue! ★★ Both you and Garth ask if there is "a tool to describe levels of complexity" (All quotes in orange.) There is, it's called entropy. High entropy means high disorder, ie things are randomly thrown around and dispersed. If you order things in structures, make it more complex, you lower the entropy. ★★ Growth is for getting resources to solve problems. You ask "how much is enough?" The answer is: until problems are solved. Solving problems will of course make people happier. You say you back progress in medicine, science, technology, and that's areas where more resources/growth are very useful. I don't think we should put too much trust in reported "levels of happiness", for many reasons: 1) It relies on subjective self-reporting, very unreliable, 2) what "happiness" is, psychologically, shifts over time, 3) other indicators say happiness rise by objective measurements! Eg suicide rates decreased in the US (and also Sweden) the years you speak of, even if it was only a slight decrease. And about economic growth, our low-hanging fruits only lasted until the 1930s, well before 1970. Besides, I believe growth is more difficult with simpler technology. Hitech is more powerful. ★★ "More smokers, the more people who get ill, the more it costs for health care...taxes will have to be raised" I'm not so sure, the government will also pay much less in pensions for those who die earlier, and pensions is one heck of a lot of money! But I think there are also hard to measure secondary effects from not limiting politicians' ambitions to meddle with people's lives. Such things make people unhappy, they'll be less creative and it's quite possible other illnesses comes from it. ★★ "as societies become more complex, the more care it takes to manage them." It could very well be - it's even likely! - complexity makes it more impossible to manage everything from the top by politicians. Complexity needs more automatic systems, the automatic adjustments done daily by the millions as people interact

Varlden en period

Ang. "Sputnik"

Ett sputnikskämt anordnades häromdagen nära Montbrison i Loire. Innan skämtet avslöjades rådde stora oron bland traktens gendarmar, som företog avspärrningar. Vad som hände var att en ihållig metallstav av 58 centimeters diameter och med en inskription av ryska bokstäver dunsade ned på stora landsvägen. När gendarmerna desarmerade pjäsen upptäckte de fyra elektriska batterier, vilka producerade ett ljud som påminde om Sputniks "bip-bip". Så småningom bejans det att pjäsen hade släppts ned från ett flygplan av ett par hedervärda personer som ville filma pjäsens fall genom luften för att sedan låta inkomsterna av filmen gå till de gamla i Loire... (Paris, Marg.).

△

En blank metallglob med inskriptionen "Sputnik USSR" har fallit ned i närheten av den lilla byn Höland i mellersta Norge. Globen var gjord av aluminium, vägde 300 gram och hade en diameter av 30 centimeter. Den innehöll inga som helst instrument. Enligt upphittarna verkar det som om sfären skulle ha hängt under en ballong. Polisen vet ännu inte vilken skämtare som skickat upp den falska satelliten. (Oslo, Marg.).

△

Sångaren Charles Trenet är just nu i full färd med att skriva en operett i science fiction-miljö, "Den fantastiska raketten". Han har redan komponerat 14 partitursidor av musiken och skriver också själv libretton tillsammans med Raymond Vici. Premiären väntas bli i november nästa år på Chatelet-teatern i Paris. Sångaren tänker lämna sin parispublik och slå sig ned på Kanarieöarna en tid för att fullborda operetten. (Paris, Marg.).

among themselves and decide over their own lives. "Regulations and bureaucracy grow organically according to the needs". I think it grows psychologically, not organically, from built in ideas in the heads of politicians', ambitions to grow their influence, thinking they know better than common folks. ★ ★ "1961, electronic typewriters with LCD displays and a small memory arrived" I think you mean 1981. LCDs weren't around in 1961 and computer memory was small and expensive. BTW, I like typewriters. Manual ones will work after Vladimir has pressed the button and electricity is out. I understand that some still prefer typewriters to computers and the increased interest in those brave little machines is interesting. (One who still uses them is our local bestseller giant Jan Guillou.) ★ ★ A static society may be stable, but can't adapt to new challenges, disasters, and unexpected developments. If you are used to change you can adapt and survive. That's a good point with sf literature. Sf prepares us for change - sf is literature about change. ★ ★ "You can't make shirts and canned goods or build houses out of electricity". In a way, you can! Adding energy fights entropy. And this means the molecules for eg shirts that have been used and spread can be gathered together again and make a new shirt! You just need energy and some ingenuity. ★ ★ "Half of the topsoil of the Earth has been lost in the last 150 years". I'm not sure that figure is correct. I wonder if the environmentalists claims around this includes all crop-growing areas voluntarily abandoned due to urbanisation (and no longer needed since modern farming produces much more on less soil). New topsoil is constantly produced too! Note how the environmentalists cheats in claims of how much water is "needed" to grow this or that. Here they also count the rain falling that just goes through the soil without being involved in plant growth. ★ ★ What few tell about is that the plastic "island" in the Pacific is shrinking and "micro plastics" is just a intermediate state for it to degrade into its original molecules and atoms. Even if plastic decays slowly, it does decay. It dissolves from eg plastic attacking bacteria, UV light and chemical processes. (And that's why the Pacific "plastic island" shrinks.) As for chemicals in our body, it's no problem as long as the levels are low and below risk levels. Remember: the poison is in the dosis! ★ ★ About humanity's future, utopia etc, it's best not to make any long-term plans. Just look at what is right ahead and deal with that. Make sure you have means and resources to deal with what you know about but wait for what happens next. Deal with new things as they turn up, but to know the future is very difficult. You can't deal with something 50 years ahead. Many factors will have changed long before that. Think of how the Swedish navy in the early 19th Century planted oak for their sailing ships 200 years in the future. They failed to imagine that steel and steam was coming. Always prepare for change! Long-term planning is a waste. ★ ★ "it is becoming increasingly likely that civilization, if not humanity, is going to crash in the near future. Certainly it will not last another 1,000 years, and maybe less than 100 years." Pessimist! OK, I'll give you there is a possibility (low, I hope!) that stinking Mr P in Kremlin may press the Button (upon which we'll all need manual typewriters again). But that's the only viable scenario of humanity's collapse. Environmentalist fanatics are wrong, for instance. The environment has become markedly better in later decades, urbanisation means lots of land go back to nature, population stalls and will begin to shrink ca 2050, we use resources increasingly more efficient, atoms aren't lost and can be recycled...and of course, the small climate variations we see are mostly due to changes in the the sun's magnetic field.

Roger Sjölander: Interesting article by Mats D Linder, but as many know I don't agree with his environmentalism. I have detailed my opinions many times (as in previous paragraph) and I'd be exhausted if even tried to comment everything in Mats' piece. ★ ★ Interesting about ticket lines and dancing. BTW my music is virtually everything, except rap, hophop and disturbing noise on today's radio top list. I have special soft spots for 1970's rock and "sunkedelic" music, as reported in earlier Intermissions.

William McCabe: Right, don't give people more guns! Constant mass shootings in the US show the risks. There's also shootings in Sweden, though few compared to the US. (It's drug gangs shooting each other, using guns smuggled from former Yugoslavia.) ★ ★ Boris was a fool having parties during lockdowns! Embarrassing! However, he is right in supporting Ukraine. Which will carry most weight, one wonders? ★ ★ What fiction for print did you have published? I'd like to read it, if possible. Why not reprint it here? ★ ★ Communism is actually the same age as all other political movements! Liberalism (Euro-Liberalism, not how

the word "liberal" is used in the US) came in the 19th century about the same time as Marx sat and cheated and cherry-picked in his "class" research. Communism was said to be "science" (ha-ha!) and perfect from the beginning. It wasn't. They tried. And failed. Tried once more. Failed. They tried and failed again and again. The basic principles of communism guarantee failure! It has always led to oppression since collectivism needs oppression. It gives a rigid dysfunctional society economy, since planned economy is inefficient. Communism has had plenty of time to "evolve" but it started in a double-ended cul-de-sac it's stuck. ★ ★ Frome's diary hinted at suicide. But without seeing any medical reports we can't be 100% sure. It could have been eg carbon monoxide poisoning. Wales is coal country. Local newspapers of the time may have more info.

Garth Spencer: The world will slowly get more economically integrated, cooperation between nations will increase (despite setbacks like crazy wars). We might get something like a weak



Full steam ahead with artist Lars LON Olsson!

"world government" if we wait a century or two. But what we need more is to empower individual citizen. Governments should be relatively weak, you must have more to say yourself! ★ ★ No point in turning radiation into electricity via panels, because the energy output from ordinary radioactivity is very weak. You can turn the output up by using expensive and dangerous substances like plutonium, used to power some space probes (basically like "radiation panels"). But you don't want plutonium laying around. ★ ★ Vancouver seems to be a very colourful city!

Heath Row: I think both James Bond and Mission Impossible very often qualify as skiffy. ★ ★ Can non-LASFSians be members of APA-L? ★ ★ I've read some sf by L Ron. He was a competent but not exceptional hack. His To the Stars playing around with Einsteinian time dilation wasn't too bad. He wrote a series about "Ole Doc Methuselah" which was translated in our sf mag Häpna! in the 1950's, and I vaguely remember them as readable. What annoys me however is that the scientology gang tries to raise him to the level of Heinlein, Asimov, Anderson and others. (Yes, I have a soft spot for the Grand Dane Poul.) ★ ★ Thanks for your info on LASFS! ★ ★ In intermission I use 12p (p=points, for type size) for ordinary text, but 11p for the translation/excerpts from the newspapers. It should be readable, compared to newspaper where it usually is 10p or 9p! But the advantage with E-text is that you can easily magnify it in your application. So just use that if needed.

Jefferson P Swycaffer: Yes, the old British currency had 240 pennies to the pound. As a young boy I was in England the year after the decimal reform. There were still old pennies around, big coins - used as tokens in the slot machines. Old shillings were the same size and value as the new 5p coins, so they still circulated.

George Phillies: I count many of those "fandoms" you list as fringe-fandom, media-fandoms, not as the real fandom. With the real fandom I mean us who deal with literature and the written word, eg fanzines, not to forget how sf fans used to be chained to the typewriters and corresponded, wrote LoCs, letterhacked the prozines (today that energy is turned to twitter, blogs, etc). I try to encourage story writing, through SKRIVA and our story contest. Visual media is something else, and media fandom to a high degree just engage in copying. Today's "fan fiction" copies from the "worlds" of other creators. All those who march around in costumes copy clothes from comic books and TV shows. When you build models of spaceships or pound tin into medieval armour you are just copying too. Fandom as we should define it has original creativity. And it also connects to its traditions and long history, from 1929 and on. The typical fringe-fan seriously believes eg fanzines were invented by punk rockers. ★ ★ All of those pre-existing conditions you mention are fatal. Old age has been the strongest fatal factor for corona virus deaths AFAIK.

John Thiel: "finnegans wake ought to be easy to translate. Just write whatever you want to and measure it to the same length" A brilliant way to phrase it! ★ ★ Nice with poetry in a zine! Two Finland-Swedes (ie of Finland's Swedish-speaking minority) have just started an electronic magazine for "experimental poetry". English info below on page <http://kontradiktion.fi/> I think they take English entries too. Deadline for #1 has passed, but more ishs should come.

Samuel Lubell: "This isn't a case of power-hungry politicians but medical experts who truly want people to be safe." I think it is a case of what we call "rationalisation" and it's not only "power hunger" - or more precisely the feeling of satisfaction some get from pushing folks around - it is also attention seeking, as in "ah, people finally care about what I say and do!". And they act from more or less subconscious impulses, after which they for themselves rationalises it that it was really about "truly wanting folks to be safe". The Gods themselves contend in vain against subconscious instincts. Claimed "good intentions" have lead many astray. ★ ★ Official virus stats over here at least are definitely exaggerated. It lays in the claim that "so and so many (X) have died of the virus", but when you study the official (Nota Bene!) excess death figures they are only a tiny fraction of X. Death figures are very stable, so either they magically went down substantially 2020-21 for virus deaths to have a slot in them - and that's very improbable - or X doesn't give the true number of virus deaths. You say: "Governments are more likely to reduce the numbers so they can claim things are getting better than to exaggerate the threat." Not at all! I think it works the other way around. In a liberal democracy politicians are very, very sensitive to their appearance. If they appear to be "soft" on the virus they'll be slaughtered by the opposition and pundits in media. So they must exaggerate how deeply worried they appear to be, which of course is followed by lockdowns, closed schools, travel bans and the rest. Dictators are on the other hand insensitive to appearance and opposition, so they have instead downplayed the virus. Kim III-Dung in North Korea is one example. Putin has also downplayed the epidemic. In eg S:t Petersburg observers found that excess deaths were 6 times higher than reported virus victims! ★ ★ "Since most U.S. states abandoned COVID restrictions death numbers have begun to rise again". No they haven't. Google "US covid deaths graphs" and you'll see. ★ ★ But when Hugos went to men, the huge majority of the sf writers were also men - and they are still a substantial. I don't think that's strange, because science fiction is a lot about science, technology, machines etc, which for bio-psychological reasons are of more interests to men. ★ ★ Much of Eric Flint's 1932 series, at least early books, deals with the old Swedish king Gustavus Adolphus, who intervened in the 30 Years War. He was rather successful, introducing new more modern tactics, but eventually he died in battle of Luetzen, the year... 1632. ★ ★ The longest Swedish book series by one and the same author could be the novels by Jan Mårtensson about the crime solving antiquarian bookseller JK Hohman. Book 50 in that series was just published. ★ ★ Time to stop. Remember: zines are Pretty Damn Fun!

Слава Україні! (=Glory to Ukraine!)