YOU'RE MADE OF STAR STUFF? WELL, SO IS THIS ANTHOLOGY. BIG DEAL.

METAL HURLANT

SPACE STARES BACK


MOEBIUS

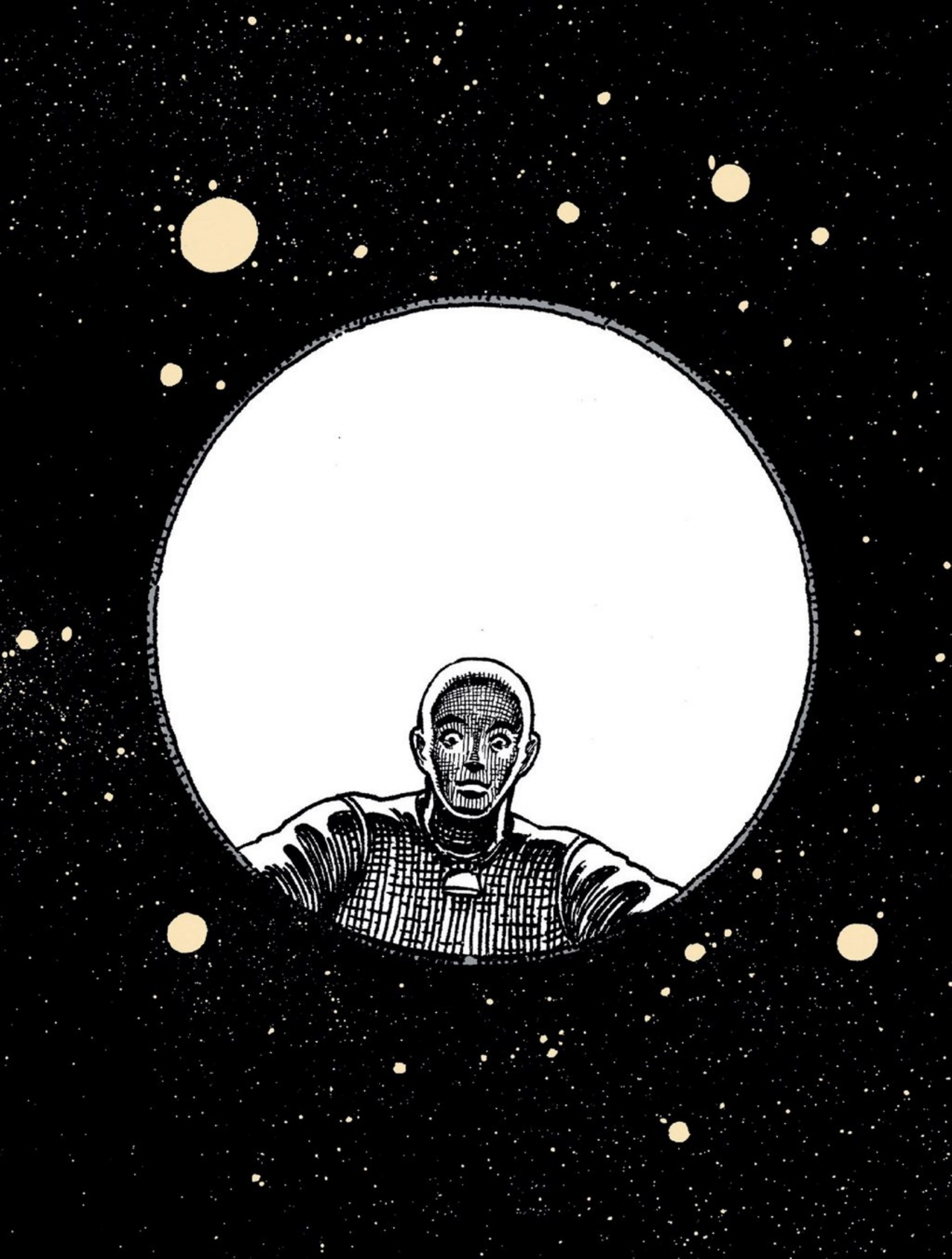


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SPACE STARES BACK

The First Great Show

Each time I'm lucky enough to spend the night in the Joshua Tree desert, there comes a moment—usually deep in the night, when everything is silent, with no light pollution—when I step out of the tent, lie on the ground, and stare up at the sky.

It's never about identifying which planet is which or anything like that. Inevitably, as if leaning over an abyss, a kind of vertigo takes hold of me. I resist at first—then I surrender. That's when the cosmos embraces me, and my mind begins to drift freely. What a journey: so accessible, and yet never quite simple—conscious, though not in control.

It's an easy ticket, but strangely enough, not everyone takes it, or at least not that often—even our eyes are no longer accustomed to looking that far! Nowadays, screens have replaced the sky. And yet, it was the very first "great show" that Homo sapiens—and their cousins—ever contemplated since their origins.

Our distant ancestors were surely devoted star watchers. Whether or not the recent interpretations of Paleolithic cave art (such as in Lascaux and Chauvet, ~17,000–36,000 years ago) that see precise star clusters and a potential intention to map constellations long before written language prove to be accurate, one thing remains certain: the sky was their own boundless IMAX.

These same cave paintings—created by artists with style, technique, subtlety, and vision enough to earn a place in this anthology—demonstrate unmistakably that these early humans were capable of abstract thinking, and thus of sharing stories and creating myths and proto-fiction.

Undoubtedly, the sky, and the universe beyond it, were a profound source of inspiration for them—sometimes a wellspring of fear, or of hope. Well, that hasn't changed a bit over the millennia, even if we now understand it better scientifically.

Exploring space—both through imagination and now through actual exploration—appears hardwired into our DNA, as it helps us define our place in the universe. Creating stories and building fictional cosmologies help us define who we are and prepare us to handle life.

Artists and writers—and certainly comic book creators—have done precisely that. By showing potential paths, often purely speculative, they have also fueled humankind's thirst for exploration and discovery, which ultimately led to the conquest of space.

But in truth, however far this quest into the unknown may take us, our ways of approaching space will always teach us much more about ourselves than about space itself.

Look at space, and it will stare back at you.

—Fabrice Giger

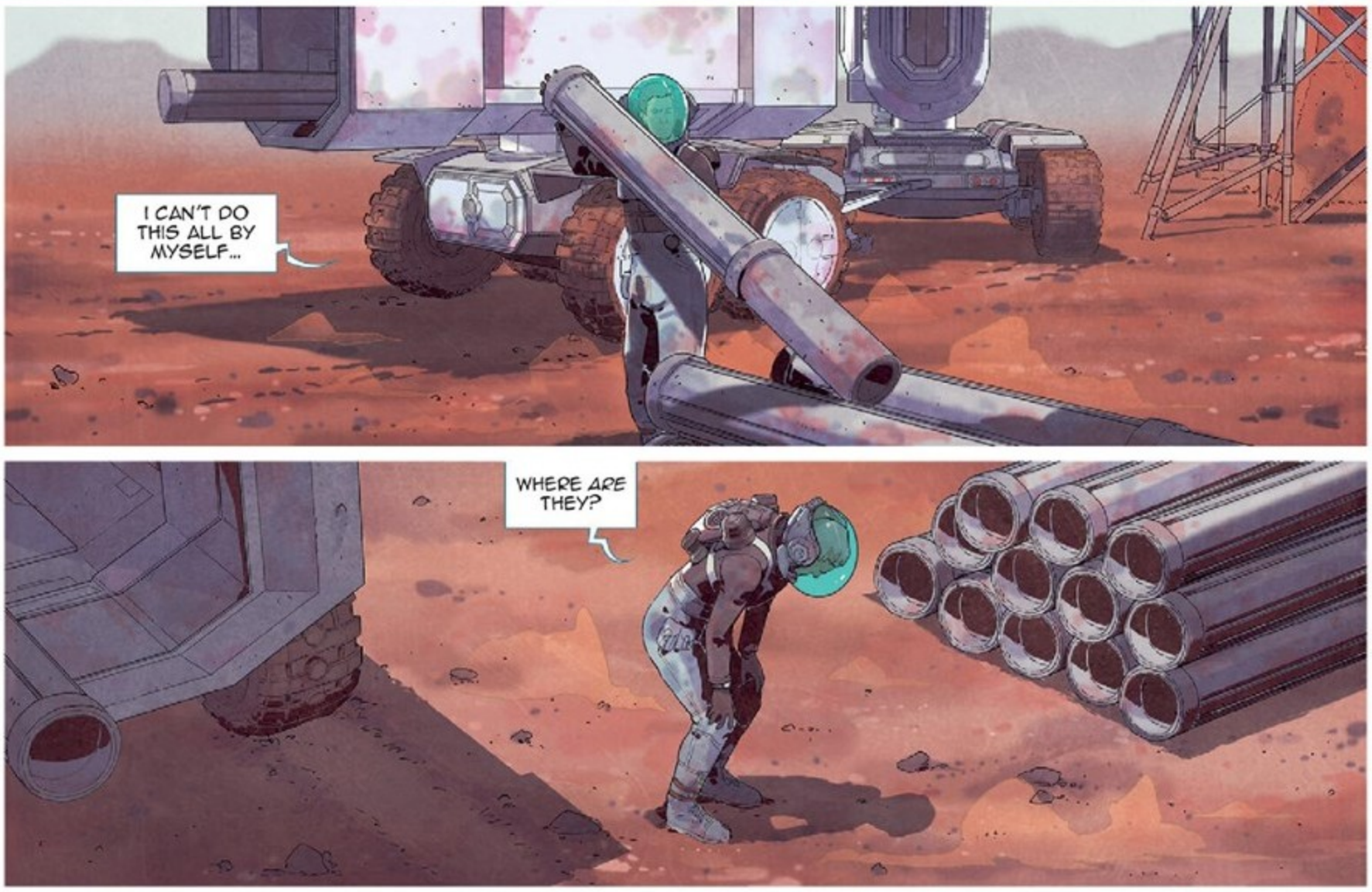


Illustration by Jorg de Vos

DAVID WILLIAM HUGHES (2007–2053)

Story by **Jerry Frissen** and Art by **Afif Khaled**







POLLY... NICE OF MY ASSISTANT TO FINALLY SHOW UP FOR WORK!

WHERE ARE MY STUDENTS?

YOUR RADIO'S OFF, DAVID. YOU HAVEN'T HEARD...

OFF

THEY STEPPED UP THE EVACUATION SCHEDULE. ALL FAMILIES WITH CHILDREN LEFT THIS MORNING.

YOU ARE NOW A TEACHER WITHOUT STUDENTS.

Bii Bii Bii

OH! THEY'RE IN.

Bii Bii

OUR EVACUATION ORDERS.

I'M SORRY, DAVID. I KNOW HOW MUCH THIS PROJECT MEANT TO YOU.

UNFORTUNATELY, WE WON'T BE ABLE TO FINISH IT.

LOUNA
YAMINE
AMEL
FAYCAL
LAURE
PABLO
ZACHARIA
SOLENNE

CONNEXION 75%

IT'S NOT YOUR FAULT, POLLY... IT'S NOBODY'S FAULT.

GOVERNOR, WE JUST RECEIVED AN UPDATE FROM EARTH.

THE NEW CALCULATIONS ONLY CONFIRM THE EARLIER ONES.

THE COMET WILL STRIKE ON FEBRUARY 13TH AT 7:30 A.M. LOCAL TIME.

WE HAVE LESS THAN FORTY-EIGHT HOURS...

TELL THEM THAT ALL SETTLERS WILL HAVE BEEN EVACUATED BEFORE IMPACT.

THERE WILL BE NO LOSS OF HUMAN LIFE.

ONCE THESE SCULPTURES WERE FINISHED, THEY WERE MEANT TO SYMBOLIZE MANKIND'S ADAPTATION TO A DIFFERENT WORLD...

NOW, THIS WORLD WILL BE DESTROYED.

SUCH A WASTE.

LET'S GO, DAVID. NOTHING LEFT TO DO HERE.

DAVID, FINALLY!

WHAT THE... WHAT IS THIS?

A MESSAGE FOR YOU, FOR THE WORLD, FOR HUMANITY.

I'M NOT LEAVING.

DAVID, NO, DON'T--










AFTER IMPACT, AFTER THE LIKELY DESTRUCTION OF MARS, MY SCULPTURES WILL FLOAT AROUND THE COSMOS FOR ALL ETERNITY.
AS SUCH, THEY WILL BECOME HUMANITY'S MESSENGERS.


WE DIDN'T HAVE TIME TO INSTALL THE PILOTS IN THE SCULPTURES, THEREBY COMPLETING OUR MESSAGE.


WHAT MESSAGE WILL HUMANITY CONVEY WITH AN UNFINISHED WORK?

I WILL THEREFORE TAKE THE PLACE OF ONE OF THOSE PILOTS...

...TURNING MY BODY INTO THE MISSING PART.

I WILL BE HUMANITY'S AMBASSADOR.

I WILL REPRESENT ITS MOST NOBLE PART, ITS ARTISTIC QUEST...

OXYGEN
12%

MY NAME IS DAVID WILLIAM HUGHES...

...AND I AM PROUD TO BELONG TO THE HUMAN RACE.



















WHAT... WHAT THE HELL IS THAT?

GERGSTRAND, TAKE A LOOK...

THOSE ARE THE LAST IMAGES OF THE COMET, RIGHT BEFORE IT STRUCK MARS.

WHAT THE...

WHAT THE HELL IS THAT?

I... I DON'T KNOW...

LOOKS LIKE AN AMBASSADOR...

...FROM ANOTHER PLANET.

ZOOM

2030

2500

FORGING THE METAL
THE ART OF THE ABYSS

Outer space in science fiction is largely a question of survival, and the answers, in the hardest of sci-fi, are purely the purview of science. How do we breathe? Travel? Eat? But this kind of logistical focus whittles life down to numbers. Man cannot live on dehydrated food pills alone; we must also nourish the soul. Even in the harshest conditions of this planet, humanity has always found some way to make art. It would make sense that, in the unfathomable isolation of the depths of space, creativity would blossom. But what would that art look like?

Jerry Frissen, the editor of *Metal Hurlant* and an accomplished writer of science fiction himself, imagines art in space as both an all-encompassing sense of self within humanity and a mission of intergalactic diplomacy in "David William Hughes (2007-2053)" [p. 4]. Frissen, known for wandering out in the California desert on his own quests for enlightenments artistic and beyond, captures the sense of exploration and the decimation of the self that can come with being subsumed into an all-consuming landscape. Brought to vivid life by **Afif Khaled,** one of this new *Metal Hurlant*'s most reliable interpreters of strange visions, the piece is equal measures inspiring and unsettling. Stories of alien encounters are often broken down into the binary of "Peace" and "War." This story, moving beyond that, ends with an alien encounter built around loneliness, self-destruction, and the artistic impulse to reach out and be seen.

But what if the artists aren't human? More and more in the arts there is a blurring of the human and technological elements, leading to some of the great philosophical questions of our time: Can a machine create art? How much human frailty is coded into our technology? When oh when will all these assholes stop trying to push A.I. into every facet of our lives? **Aimée de Jongh's** story "Elsewhere" [p. 14] puts a clever spin on these questions and more. De Jongh, whose works like *Days of Sand* and *Sixty Years in Winter* ache with a very deeply felt humanity, crafts a quietly subversive tale of borrowed dreams and the potential dangers of outsourcing our very human endeavors and aspirations to machines, especially machines whose very programming may be encoded with the faults and foibles of its creators. A caustic message, perhaps, to certain "emerging technologies" claiming an ability to either replicate human artistic expression or solve humanity's problems through overly simplistic visions of colonization.

Inspiration and authenticity, as well as possible non-human (and yet, all-too-human) approaches to art, were also obviously on the mind of **Richard Guérineau** when he crafted his sly story, "David Jones" [p. 21]. The early days of rock 'n' roll have faced criticism for being colonized by a number of white musicians taking the sounds and stylings of Black musicians—frequently without attribution—and in Guérineau's trippy alternate history, Mars considers turnabout fair play. Again, it is compelling to view interactions with an alien species beyond the typical "Peace" and "War" lenses, and Guérineau's petty, deceitful fame hounds, drawn in his pop art color style, feel like fame-addicted cousins to the carnage-fueled chaos agents of the Topps trading cards series (and later Tim Burton film) *Mars Attacks.*

That cynical view of art as a battleground to be fought over and used in a war of cultural dominance can feel all too familiar and more than a little disheartening, so we end this section with **Laurent Siefer's** beautiful "The Enigma" [p. 30]. Starting with a conceit similar to *2001: A Space Odyssey*, the explorers of Siefer's story encounter an unexpected creation that temporarily halts their process of establishing a base for a colony on Mars. The story intertwines the pull of space exploration with the joys of artistic discovery, both born from the same desperate hope and—may it be so for us all—the same affirming conclusion found in the story's final line.

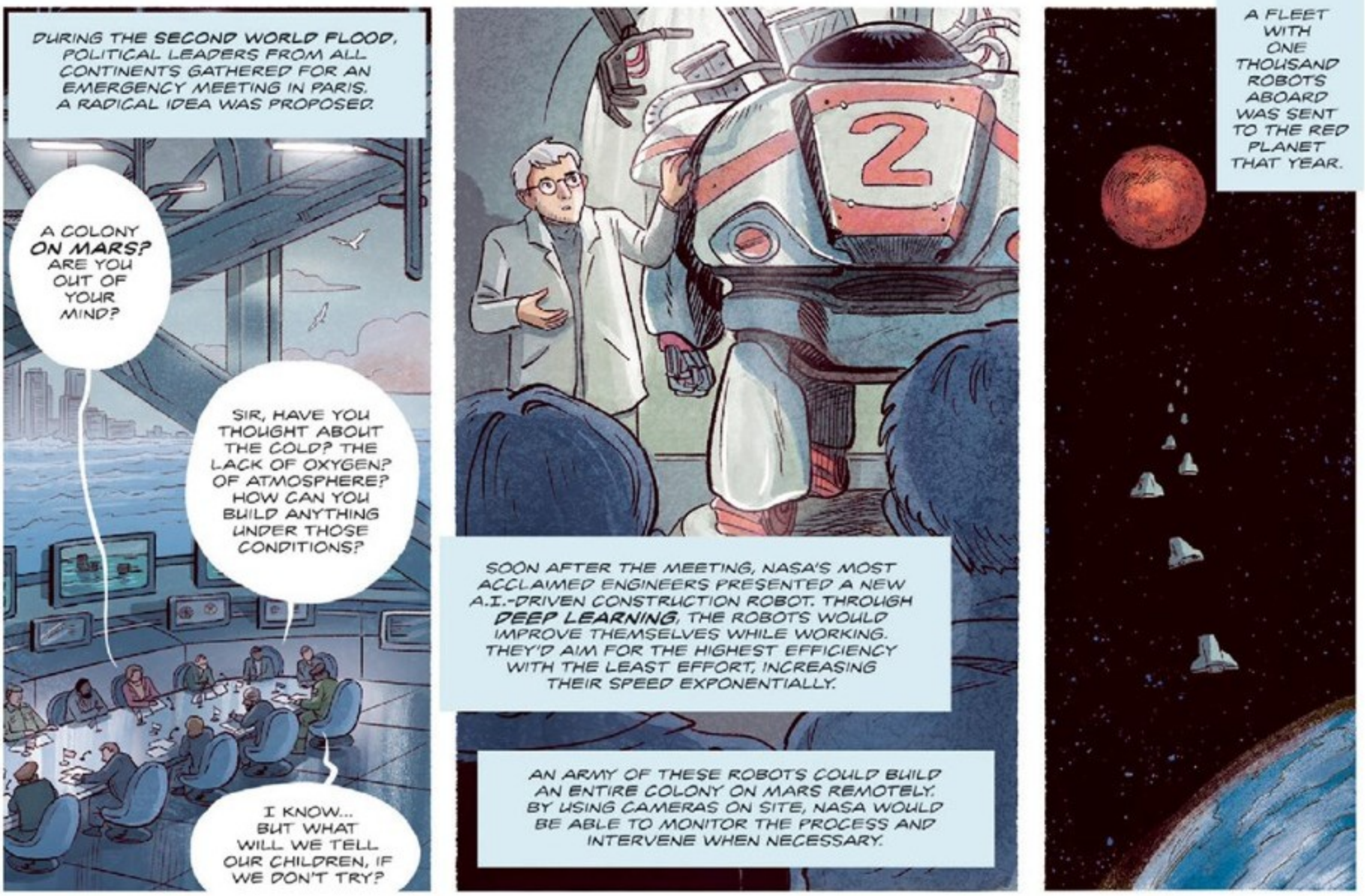
—Jake Thomas



Illustration by Richard Guérineau

ELSEWHERE by Aimée de Jongh





THE FIRST ATTEMPTS AT CONSTRUCTION WERE PROBLEMATIC, BUT THE ROBOTS IMPROVED QUICKLY. AT ALL TIMES, APPROVAL FROM NASA WAS NECESSARY TO CONTINUE. BECAUSE OF THIS, THE WORK PROGRESSED SMOOTHLY.

THE ROBOTS BUILT HOUSING UNITS THAT CONTAINED AN ATMOSPHERE SIMILAR TO OUR HOME PLANET. WATER FROM FLOODED CITIES ON EARTH WAS STORED IN HUGE SILOS AND ELECTRICITY WAS GENERATED BY HIGH-TECH SOLAR PANELS.

BECAUSE OF THEIR ***DEEP LEARNING*** NATURE, THE ROBOTS SOON LEARNED HOW TO DESIGN THEIR OWN EQUIPMENT.

TO NASA'S SURPRISE, THEY EVEN LEARNED HOW TO CREATE COPIES OF THEMSELVES, BUILDING AN EVER-EXPANDING ARMY OF ROBOTS. FLAWS AND BUGS WERE ELIMINATED WITH EVERY NEW MODEL. EACH ROBOT WAS MORE EFFICIENT THAN THE PREVIOUS ONE.

THE ROBOTS SOON REPLACED THE STEADY CAMERAS WITH DRONES, WHICH FLEW HIGH OVER THE BUILDING SITE AND CAPTURED EVERY DETAIL.

IF ANYTHING SEEMED OUT OF ORDER, NASA COULD TAKE ACTION IMMEDIATELY. BUT THIS WAS HARDLY EVER THE CASE. THE ROBOTS WERE SO EFFICIENT THAT ANY PROBLEM WAS QUICKLY SOLVED.

EXPERTS WERE ASTONISHED BY THE SPEED OF THE MISSION. WITHIN TWENTY YEARS, THE FIRST CITY WAS DECLARED INHABITABLE.

ARCHITECT EDITH CHANG WAS THE DESIGNER OF THE CITY. SHE WAS PRAISED FOR HER UNIQUE VISION. NASA ASKED CHANG TO BECOME THE FIRST HUMAN SETTLER ON MARS. SHE ACCEPTED.

IN A SPEECH THAT REACHED MILLIONS OF VIEWERS WORLDWIDE, SHE PROUDLY PRESENTED HER THOUGHTS ON THE MISSION.

THANK YOU, NASA, FOR THIS INCREDIBLE HONOR.

THE CITY I DESIGNED IS CALLED **ONEIROPOLIS**, WHICH MEANS "CITY OF DREAMS." DREAMS HAVE BUILT OUR NEW HOME...

... AND DREAMS WILL MAKE IT THE PARADISE OF THE FUTURE. ***SO LET NONE OF US EVER STOP DREAMING!***



WHEN SHE BOARDED THE SHIP WITH HER CREW, THERE WAS A SENSE OF RELIEF. AT THIS POINT, THE THIRD WORLD FLOOD WAS LOOMING, BUT NO ONE WAS AFRAID ANYMORE. FINALLY, WE HAD A PLACE TO GO IF LIFE ON EARTH BECAME IMPOSSIBLE.



MONTHS PASSED, AND AFTER A JOURNEY OF NO LESS THAN 210 DAYS, THE FLEET REACHED MARS.



NOBODY KNOWS EXACTLY WHAT EDITH CHANG FELT WHEN SHE FIRST LAID EYES ON THE COLONY.



ALL WE KNOW IS THAT IT WAS NOT WHAT SHE HAD EXPECTED.

THE PLANET WAS AS BARE AS IT HAD ALWAYS BEEN, WITH RED ROCKS AND DESERT AS FAR AS THE EYE COULD SEE. THERE WAS NO SIGN OF CONSTRUCTION WORK, LET ALONE A CITY.

WHEN THE FLEET APPROACHED THE SURFACE, THEY SAW RUINS THAT VAGUELY RESEMBLED BUILDINGS. BUT THE STRUCTURES WERE CROOKED LIKE THE TEETH OF AN OLD WOMAN.

INSIDE THESE RUINS, NEARLY EVERYTHING WAS IN THE WRONG PLACE. DOORS WERE INSTALLED IN CEILINGS; STAIRS LED TO NOWHERE.

NONE OF THIS MADE SENSE, UNTIL EDITH CHANG SPOTTED A GROUP OF LAMPPOSTS LIGHTING UP THE MIDDLE OF THE DESERT.

THERE, IN THE CENTER, STOOD AN AGGLOMERATION OF SMALL, GLISTENING BUILDINGS. WHILE IT WAS ONLY A METER HIGH, IT CONTAINED SCHOOLS, OFFICES AND HIGHWAYS. TINY ROBOTS WORKED WHILE BEING FILMED BY DRONES THE SIZE OF BUTTERFLIES. IT WAS A PERFECTLY BUILT MOVIE SET.

IT SEEMED THAT AFTER FAILED ATTEMPTS TO MEET NASA'S EXPECTATIONS, THE ROBOTS CHANGED THEIR STRATEGY. THEY CALCULATED THAT IT WASN'T THEIR CONSTRUCTION WORK THAT WAS JUDGED FOR APPROVAL, BUT THEIR ***FOOTAGE***.

SO, IN ORDER TO RECEIVE NASA'S APPROVAL, THEY CONSTRUCTED A PERFECT MINIATURE CITY, WITH MINIATURE COPIES OF THEMSELVES, THAT THEY FILMED OVER AND OVER AGAIN.

THE LEAST EFFORT, THE HIGHEST EFFICIENCY. THE ROBOTS DID WHAT THEY WERE DESIGNED TO DO.

EDITH CHANG RESIGNED NOT LONG AFTER HER RETURN. SHE LOOKED DEFEATED AS SHE LEFT THE NASA OFFICE.

THE "CITY OF DREAMS" WAS A MIRAGE. NASA SOON ENDED ITS ENTIRE OPERATION ON MARS. IT WAS A FINANCIAL CATASTROPHE.

IF YOU ASK ME, IT WAS CLEAR FROM THE START THAT THE MISSION WOULD FAIL.

WHAT DO YOU MEAN, MISS?

THINK ABOUT IT. IF YOU LITERALLY **NEVER STOP DREAMING**, AS EDITH CHANG PROPOSED IN HER SPEECH...

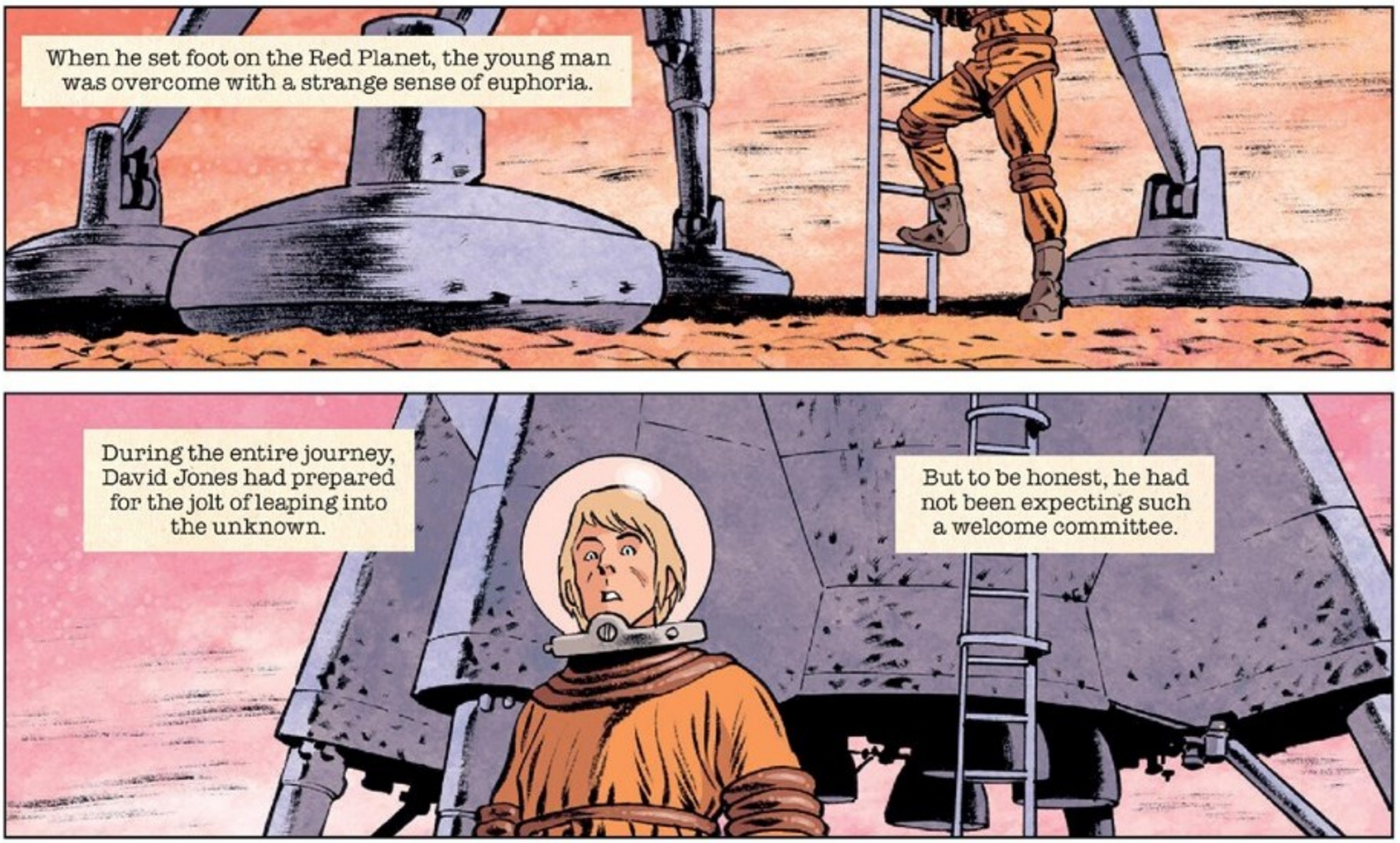
... THEN YOU'LL **ALWAYS BE ASLEEP.**

BBBZZZAZ

BBBBBZZZZZZZZ

IF ONLY WE HAD WOKEN UP...

DAVID JONES by Richard Guérineau



The exotic, beautiful natives were remarkably accommodating and seemed genuinely thrilled to welcome him.

The network of Martian canals sparkled in the silvery, rose-colored dawn, winding through the ground of scarlet silica in graceful, interlacing arabesques.

Their boat glided along banks where a parade of strange sculptures went by.

In the distance, he could glimpse structures reflecting a simple yet refined architecture.

Lennon hadn't lied: the Mars adventure promised to be inspiring.

London, a few weeks earlier.

By what twist of fate had the young musician, a poor man's Bob Dylan, found himself at a party surrounded by pop stars and trendy celebrities?

And more importantly: how had a guy like David Jones captured the interest of the great John Lennon?

I'M TELLING YOU, MAN, MARS IS THE BEST TRIP EVER!

MOST OF THE CELEBS HERE HAVE BEEN TO MARS, MAN! AND TRUST ME, THEY WOULD ALL SAY IT'S A MUST!

WHAT I EXPERIENCED THERE BLEW MY NEURONS AWAY, MAN! DITTO FOR PAUL AND GEORGE!

LOOK AT WHAT HAPPENED TO THE FAB FOUR AFTER THAT...

THE NO. 1 BAND IN THE WORLD, MAN!

David had given in.

In the car that drove them to the launch site, Yoko Ono lamented the popularity of Martian travel.

IT'S NOW OR NEVER. IN TWO YEARS, EVERYONE WILL GO TO MARS AND IT'LL ALL BE OVER.

Dr. Heinrich von Warholl, who headed up the space program, stared out into the distance behind his smoked lenses while John hung on Yoko's lips.

THE MARTIANS WILL SELL US ERSATZ FROM THEIR CULTURE AND THE RED PLANET WILL LOSE ALL ITS AUTHENTICITY.

BUT YOU'RE LUCKY. YOU'RE ONE OF THE LAST ONES CHOSEN TO BE TRANSCENDED BY MARTIAN ART.

MOURN YOUR CHRYSALIS, YOU'RE ABOUT TO BECOME A BUTTERFLY.

AND YOU'RE GONNA BLOW UP THE CHARTS, MAN!

David went along with his hosts' easy going hospitality.

Every place he visited opened up new and unexpected horizons.

Every encounter filled him to the brim.

Extravagantly beautiful flora and fauna.

Boys and girls with emerald flesh and intoxicating scents.

And music everywhere.

Dancing and singing.

Partying.

Six months later, David had returned to Earth.



The experience exceeded all his expectations. He came back transcended.

ZIGGY STARDUST

AND THE SPIDERS FROM MARS

With a handful of songs and a few pals, he recorded an album and set out to conquer the hit parades.

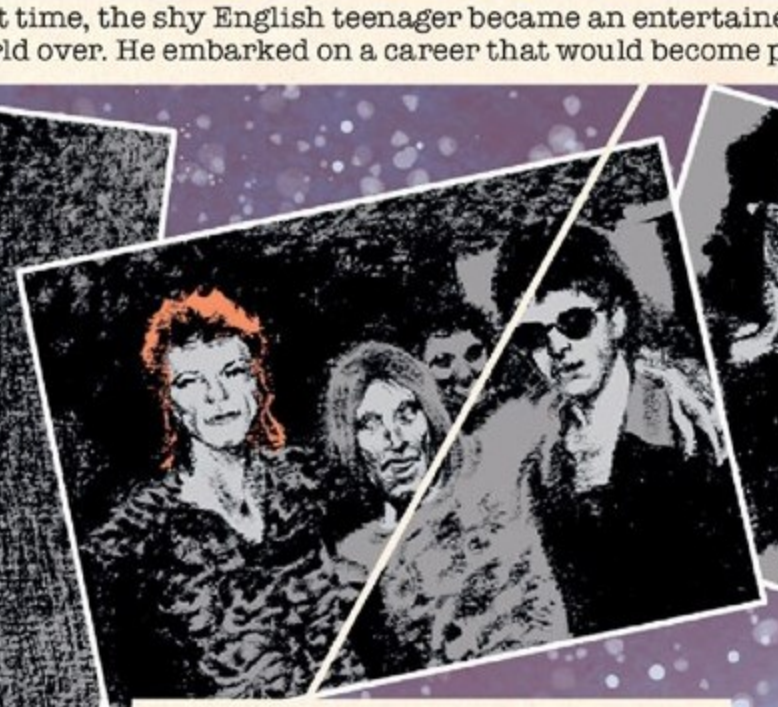






In a short time, the shy English teenager became an entertainer worshipped the world over. He embarked on a career that would become phenomenal.









He now belonged to the very exclusive club of inaccessible stars...



...who had experienced...

...THE MARTIAN TRIP.



AND THAT'S HOW MARS SECRETLY COLONIZED EARTH.

TODAY, THIRTY PERCENT OF ALL ARTISTS ON EARTH ARE MARTIANS!

THE OPERATION "GREAT REPLACEMENT" IS UNDERWAY, MAN. THE WILLING ENSLAVEMENT OF HUMANS BY POP CULTURE.

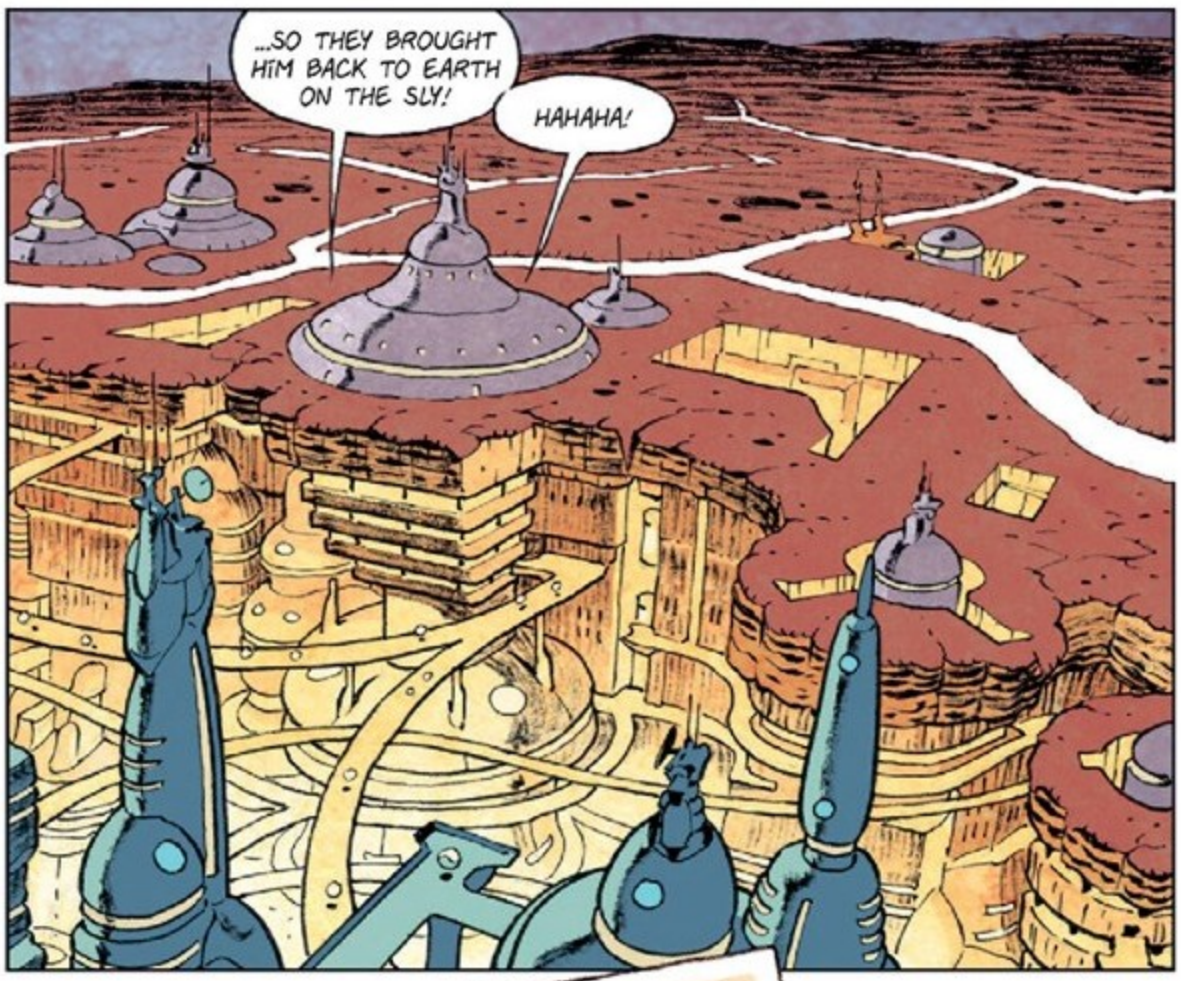
A GENIUS PLAN!

THEY GOT US ALL, MAN! KEITH, PAUL, LOU, ANDY...

EVEN THE KING IS ROTTING AWAY HERE WHILE HIS MARTIAN AVATAR CROONS IN VEGAS!

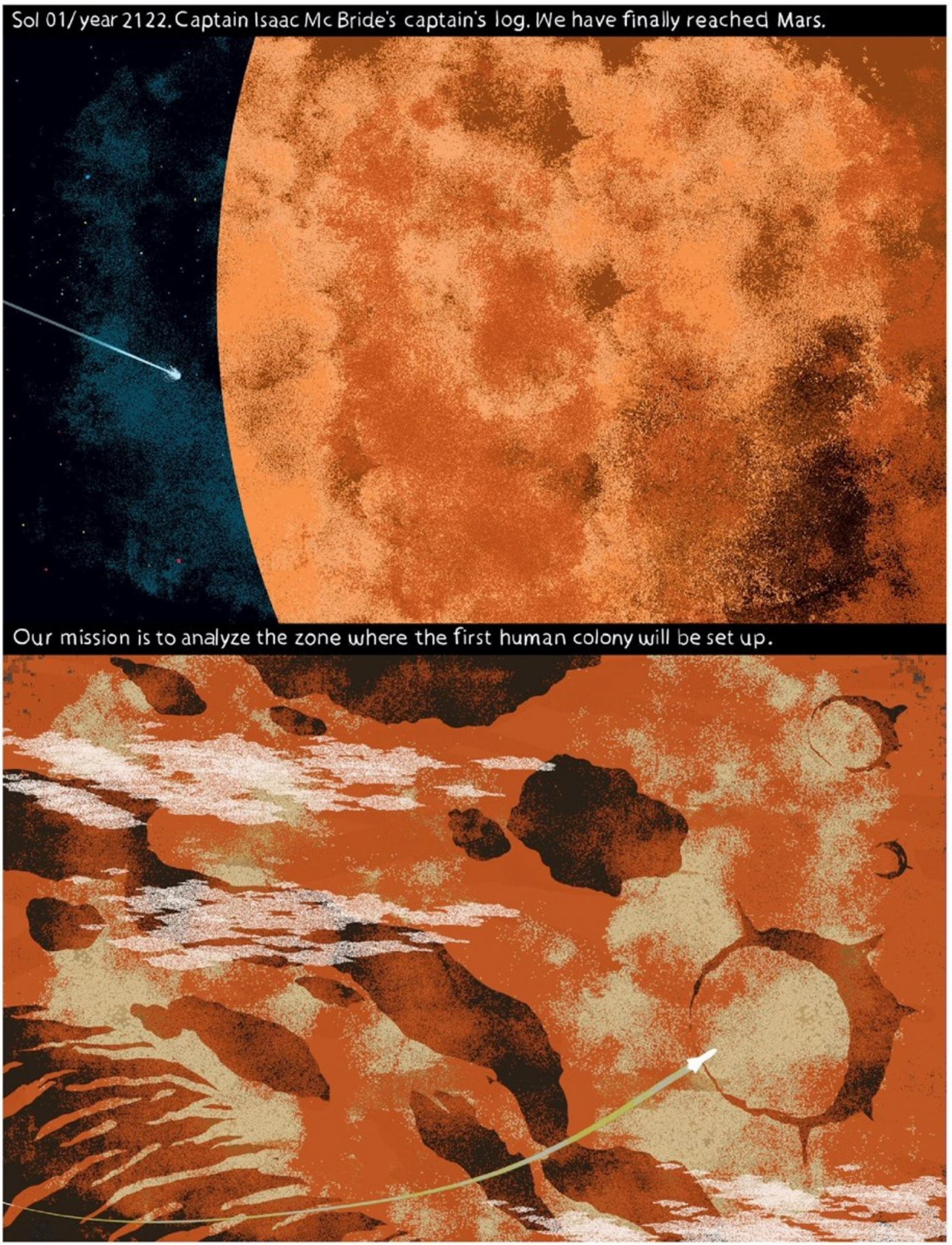

HOLY SHIT! DIDN'T ANYONE ESCAPE?
JUST ONE. RINGO.
RINGO STARR?!
YEP.

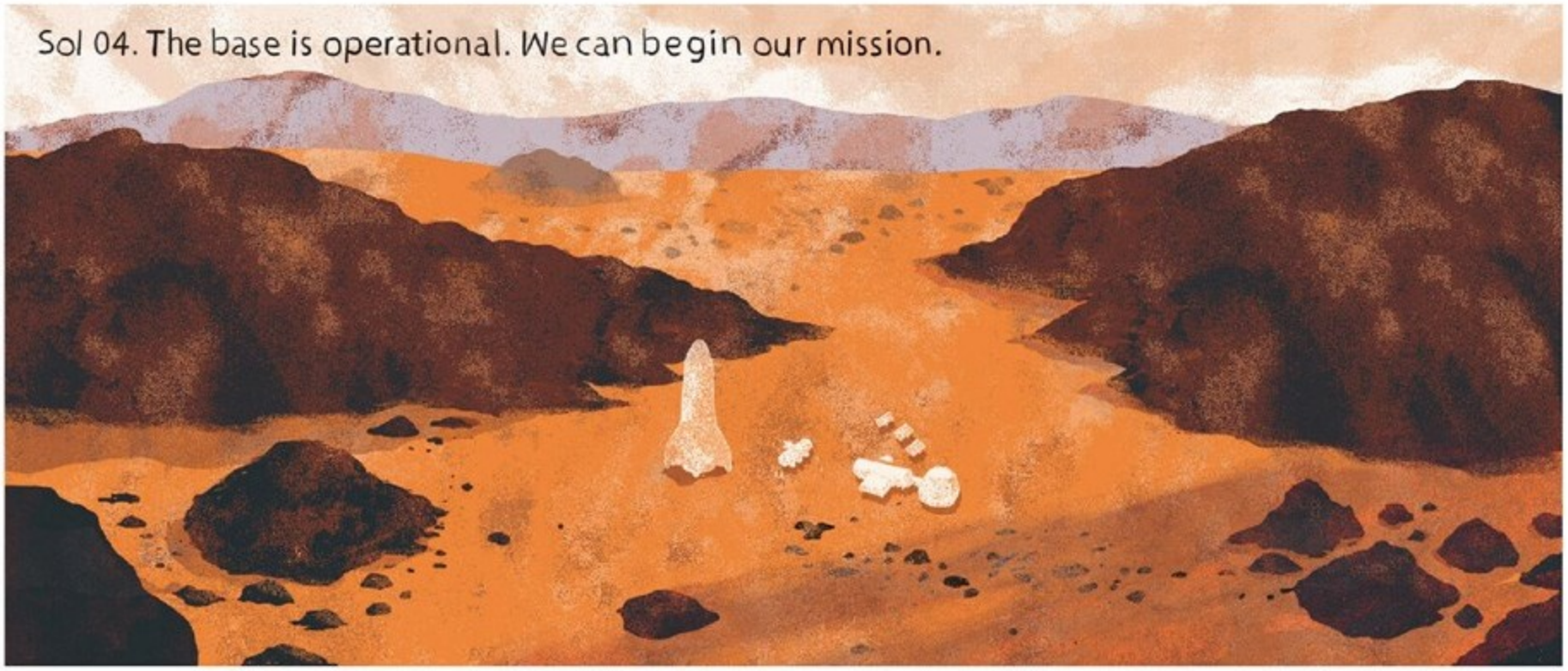

THEY THOUGHT THEY HAD ALREADY REPLACED HIM..


...SO THEY BROUGHT HIM BACK TO EARTH ON THE SLY!
HAHAHA!

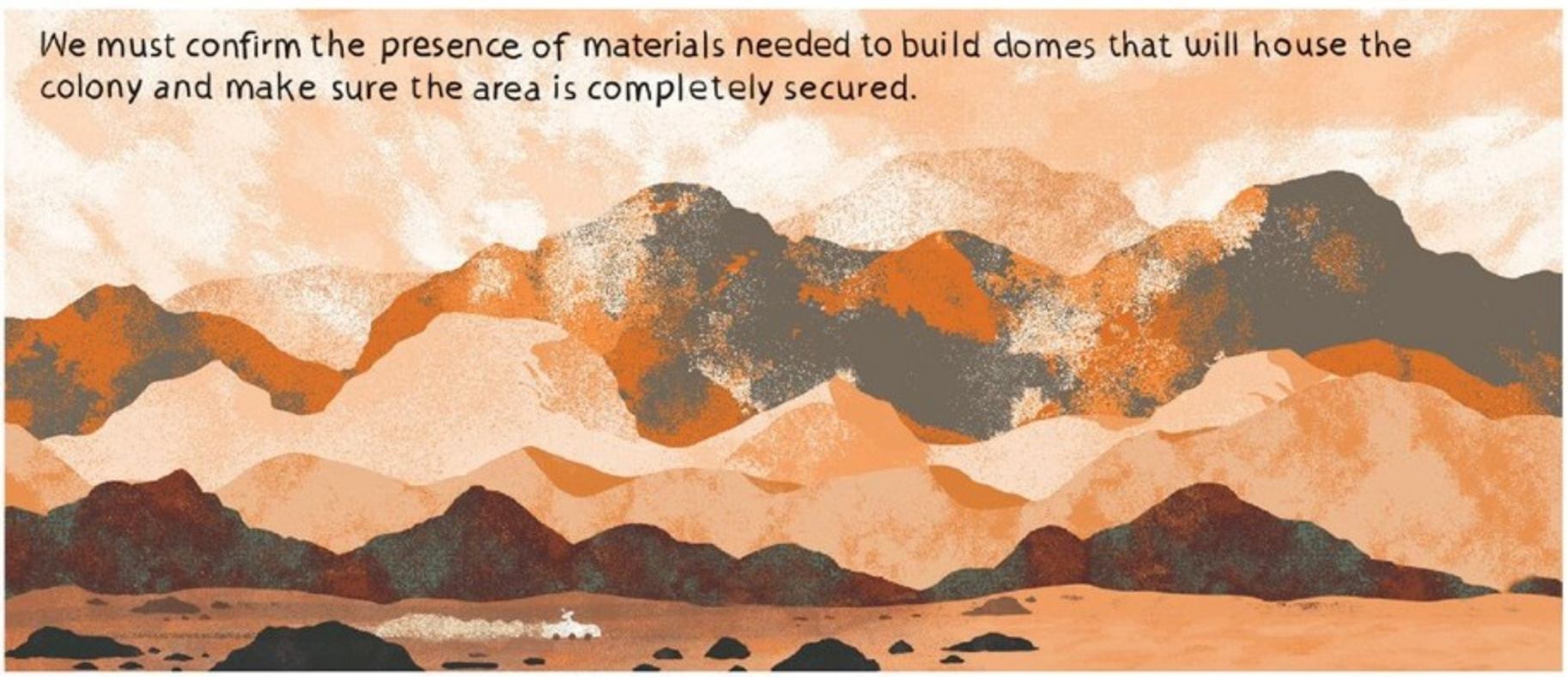

Miss you Boys
Kisses from Earth
Ringo

THE ENIGMA by Laurent Siefer



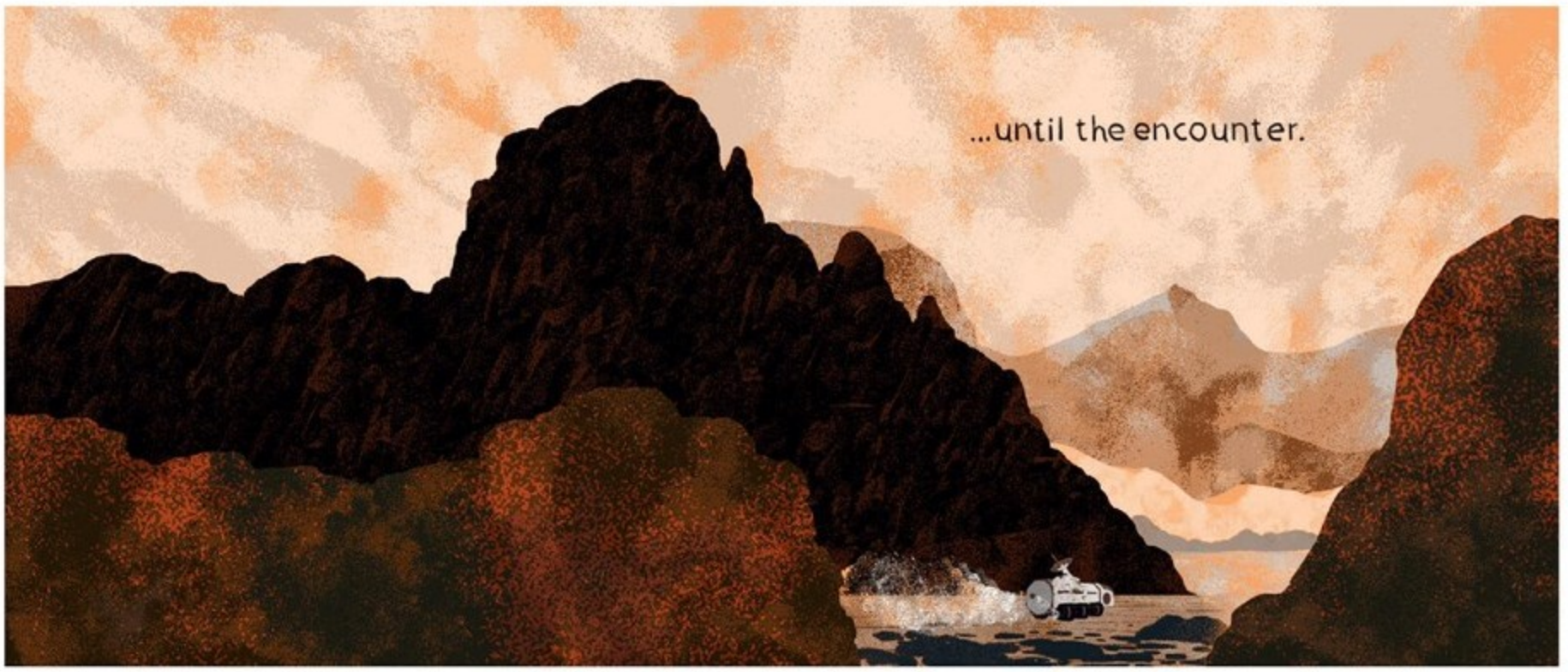

Sol 04. The base is operational. We can begin our mission.


We are four astronauts specializing in geology.


We must confirm the presence of materials needed to build domes that will house the colony and make sure the area is completely secured.


Lisa, Victor, Reva, and I have prepared for any contingency. So much is riding on this mission!


Everything was going as planned...


...until the encounter.



Nothing about that structure seemed created by natural causes...

The strange reliefs left us speechless.

Readings showed that the object was inert and didn't emit any waves or radiation.

It appeared to pose no threat.

We all four agreed: this structure was built and then moved. So why was it there? And since when? What purpose did it once serve...

...or STILL serve?

We went to work to find out.

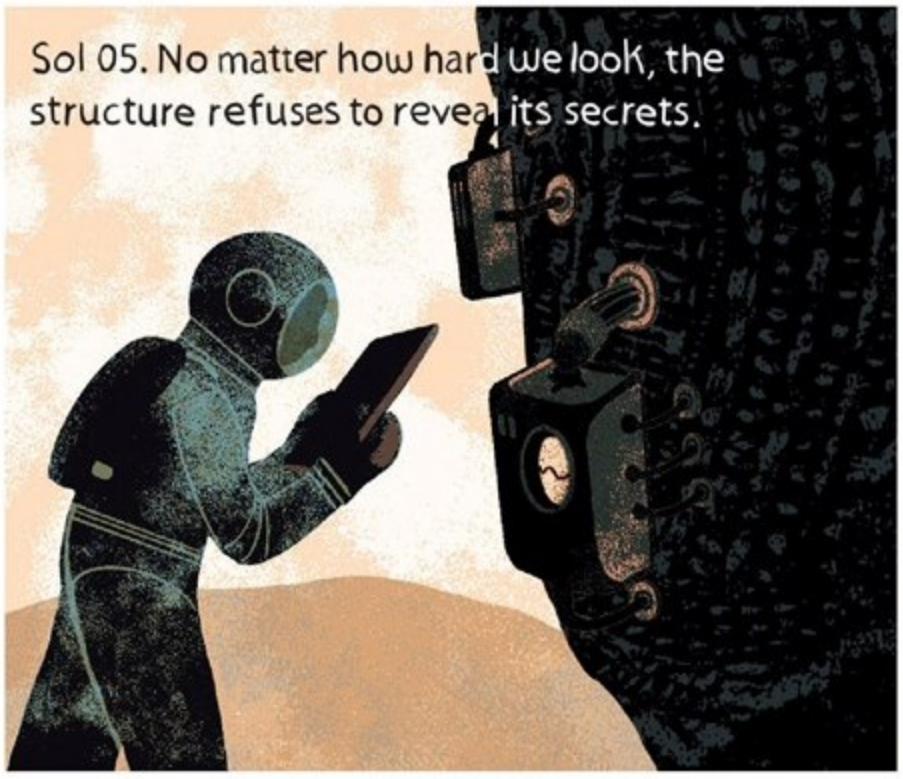
We scanned, measured, and photographed the structure and analyzed its environment.

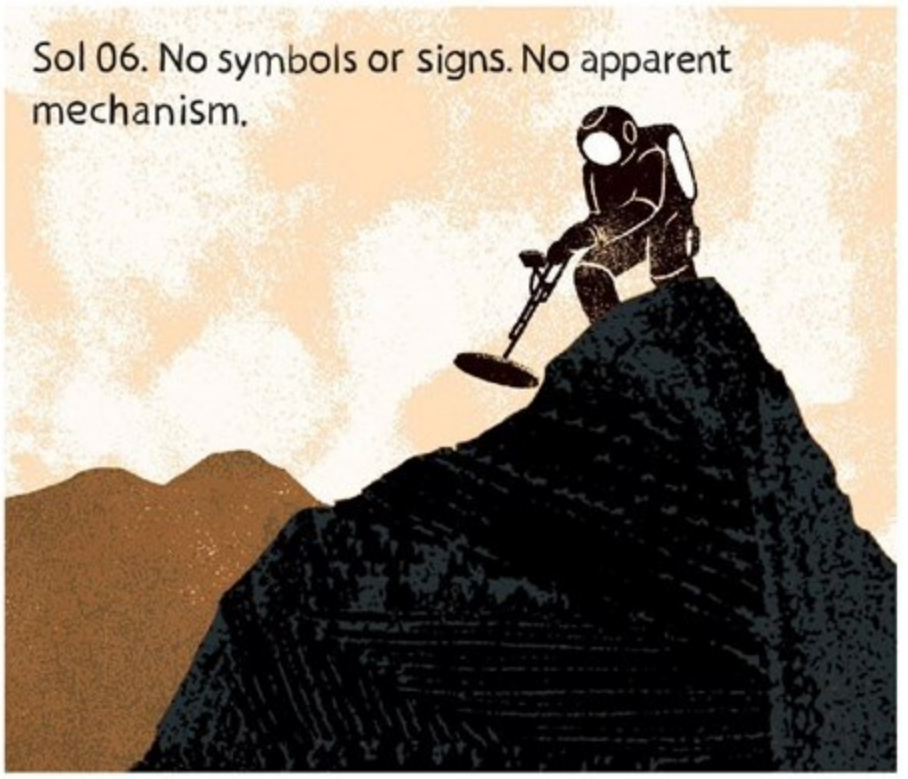
At the end of the day, we sent the data to Earth. We will continue our research over the following days.



Some of us hypothesized that the structure was a sort of cosmic map...

After all, we Earthlings sent our coordinates into space aboard the Voyager probe.

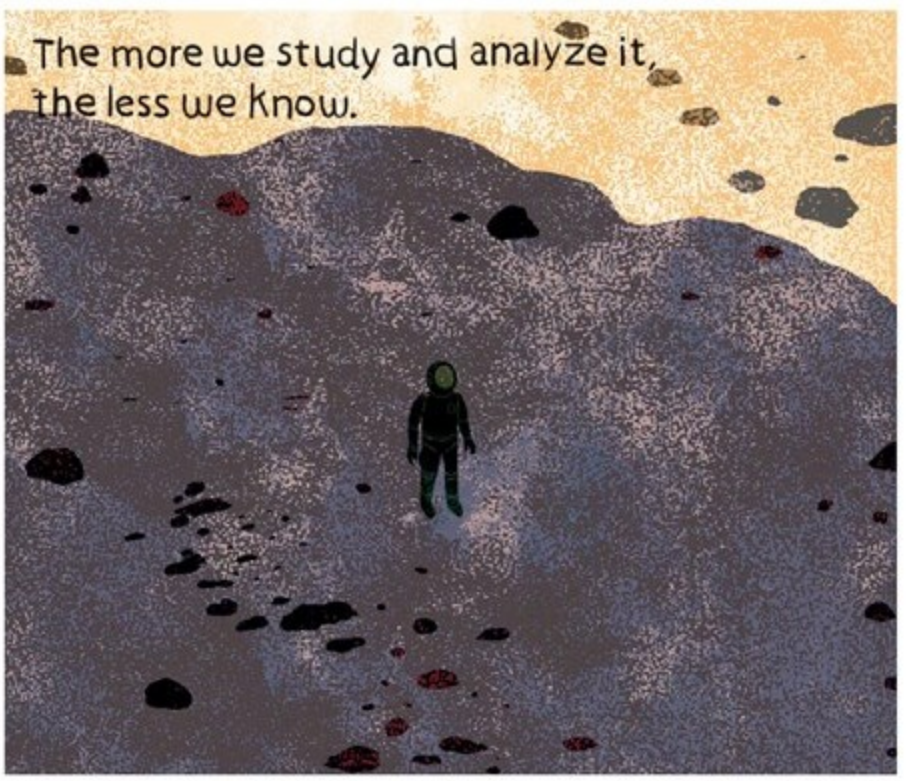

Sol 05. No matter how hard we look, the structure refuses to reveal its secrets.


Sol 06. No symbols or signs. No apparent mechanism.






Sol 08. It is made from matter that is unknown to us.


The more we study and analyze it, the less we know.


Today, we stayed onsite longer to wait for the dating results...
100,000 years. On Earth, we were still living in caves then.


Suddenly, the structure started to reflect the heavens...

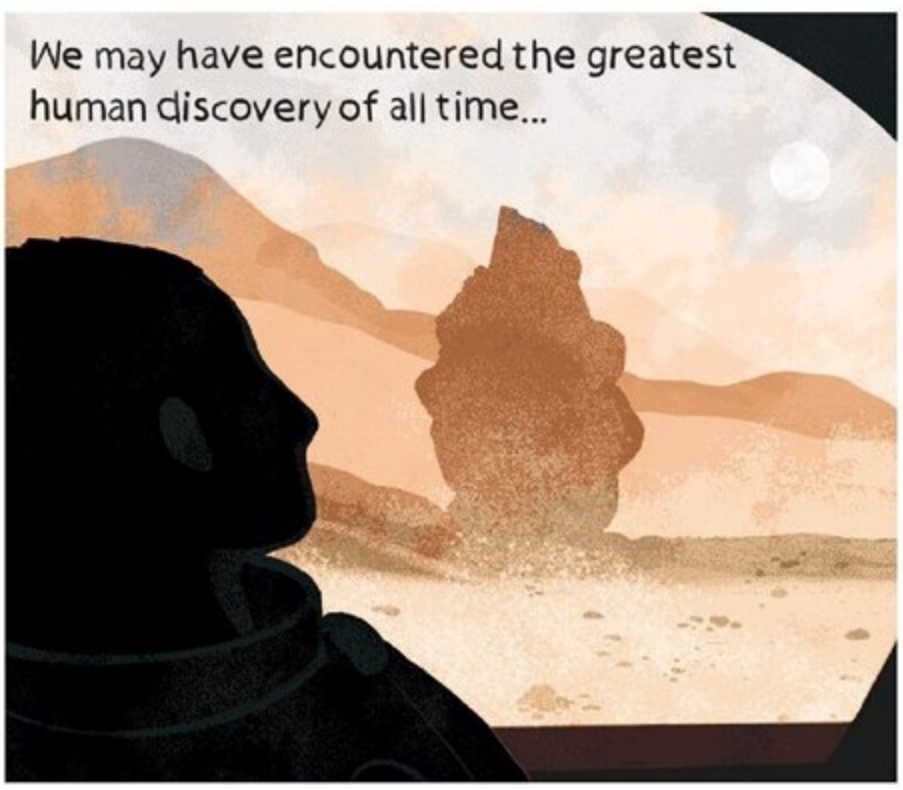

...and altered our gaze.

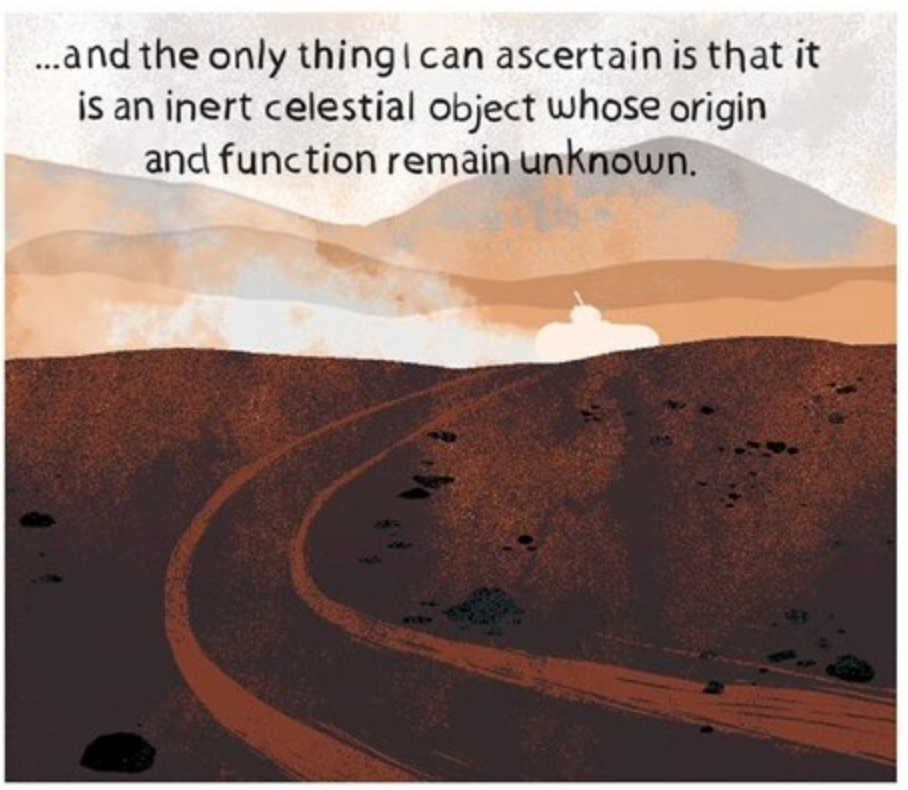

Sol 11: Earth has deemed our data insufficient and ordered us to resume our mission for the colony.

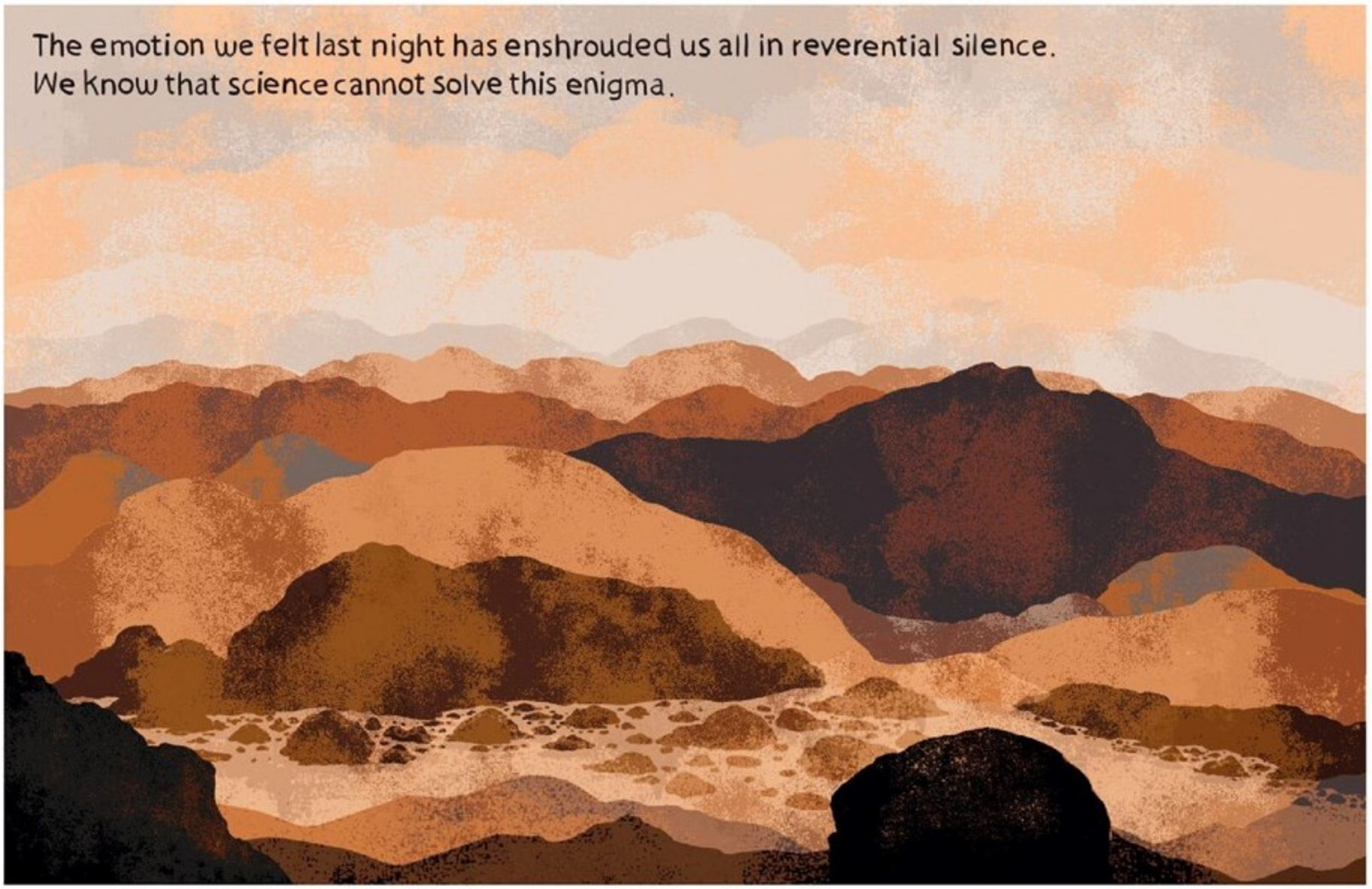


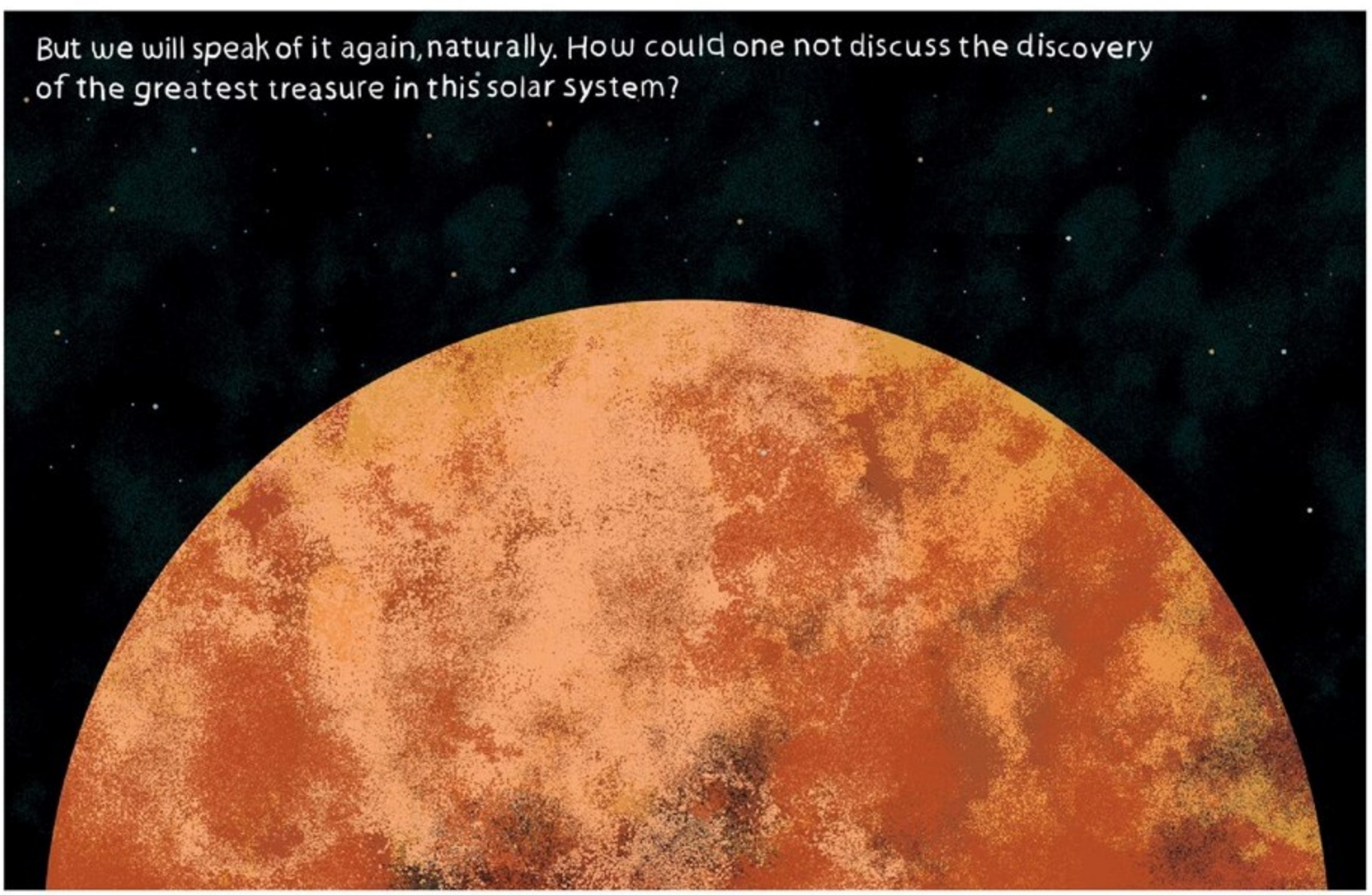





We may have encountered the greatest human discovery of all time...


...and the only thing I can ascertain is that it is an inert celestial object whose origin and function remain unknown.


The emotion we felt last night has enshrouded us all in reverential silence.
We know that science cannot solve this enigma.


But we will speak of it again, naturally. How could one not discuss the discovery of the greatest treasure in this solar system?

An unusual work of art offered to us by strangers millennia ago, to tell us...

...that we are not alone.

FORGING THE METAL
IN SPACE, EVERYONE CAN STILL HEAR YOU BEING A PRICK

The dream of space, of exploring the expansive dark cosmos, is a dream of escape. We wish to go far beyond everything that ties us down on this planet: the social pressures, our personal and cultural histories, our obligations. In space, we imagine, we could be explorers, adventurers, free in a way that will finally allow us to truly be *ourselves*. Except, of course...what if it is ourselves that is the problem?

There's the old bit of homespun wisdom that says if you leave your house in the morning and go about your day and you run into an asshole, you met an asshole. However, if you leave your house in the morning and go about your day and you meet asshole after asshole after asshole, well then, you are the asshole. Wherever you go, there you are, to cite another phrase, and if you've got problems, those problems will follow you to the ends of the universe.

This is illustrated to grotesquely comical effect in **Mœbius'** classic short story "It's a Small Universe" [p. 42]. What is there to say about Mœbius that hasn't already been said (in Issue 1, no less!)? The maestro's extraordinary craftsmanship works in concert with his wry humor to build a story that plays off of the inability to escape all our petty, personal detritus, even in the far reaches of space. How can we travel so far, and still seemingly always be right back where we started? Hell may be other people, but we're all someone else's other person, and so we all bring Hell with us.

Hell is undeniably along for the ride in "Resource" [p. 50] by **Nikola Pisarev.** A sci-fi story with the hard-bitten grit of a classic Western, you can almost hear Ennio Morricone's "The Ecstasy of Gold" playing as you read. Cultures may have their differences, social mores may evolve over the years, but the baser elements of humanity know no boundaries; they have been with us since the beginning and will be there at our end (if not cause it). One of the more potent of those baser instincts is greed, the all-consuming hunger for more that can never be sated. Pisarev left Russia when it began its war with Ukraine, a conflict born from a potent combination of both greed and pride, so he knows whereof he writes and draws. What Pisarev also understands, and executes masterfully in the story, is the destructive nature this monomania of greed brings not only to anyone in the way of those afflicted, but to the afflicted themselves. We can run to the far reaches of space, we can destroy everyone around us, we can get what we covet most, but we cannot escape ourselves.

The desire for escape and the complicated group dynamics that put it at risk are also to be found in "Overload" [p. 61] by Yacine Elghorri, also known by his comics nom de plume, **Elgo.** Issues of identity and nationality are placed front and center as an international group of astronauts are up against a dire countdown and a mysterious alien presence. In addition to his comics work, Elgo has done concept designs for film and television on projects such as *Titan A.E., Evolution,* and *Futurama.* Here he scales back, slowly whittling away design and background elements until the final pages are stark human drama played across faces and a literal ticking clock. As much as the conflict here is immediate and present, one character's invocation of the riddle of the Sphinx—and its ultimate answer—speaks to the issues at hand having been present since the pharaohs.

The past touches the future in **Serge Clerc's** 1979 classic "Beyond the Stars" [p. 80], published here in English for the first time. Clerc's beautiful bande dessinée "ligne claire" style accentuates a story of class and innocence lost set aboard a starship with the look of an old-school adventure serial from Milton Caniff or an Hergé *Tintin.* The framing device at the beginning expertly contextualizes the action of the main story—the glitz and glamour of the beautiful ship *Antares* against the post-apocalyptic wasteland we see the adult version of protagonist Willie Junkes living in. The same exploitative caste system that plagued the grand ocean liners of the early twentieth century are still with us in the space ports of the far future. Poor Willie Junkes didn't even get to paint Kate Winslet like one of his French girls. Alas. We can be disappointed, but we can't be surprised.

The modern-day snake oil salesman isn't pushing miracle tonics, but miracle technologies, promising a grand future awaiting us on Mars or within the incomprehensible data centers feeding artificial "intelligence" machines. However, to paraphrase the immortal bard, the faults, dear Metaloids, are not in our stars, but in ourselves.

—Jake Thomas

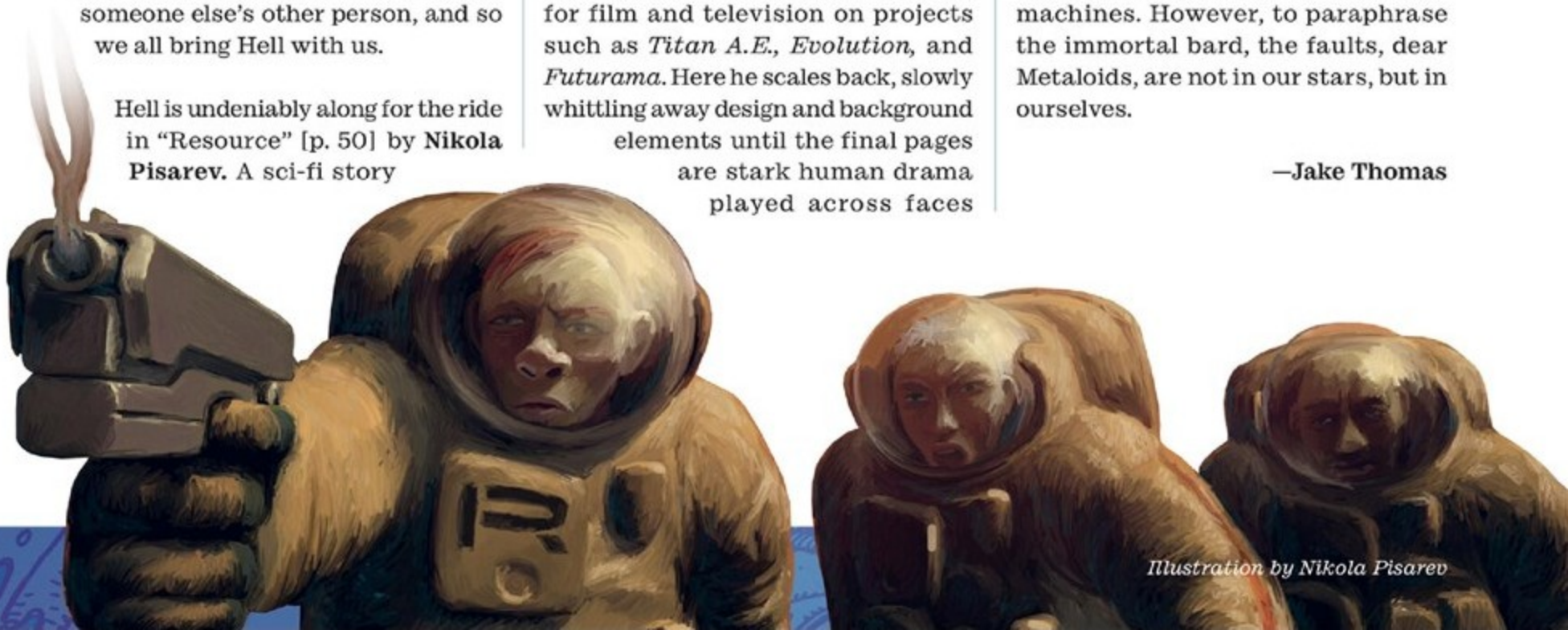
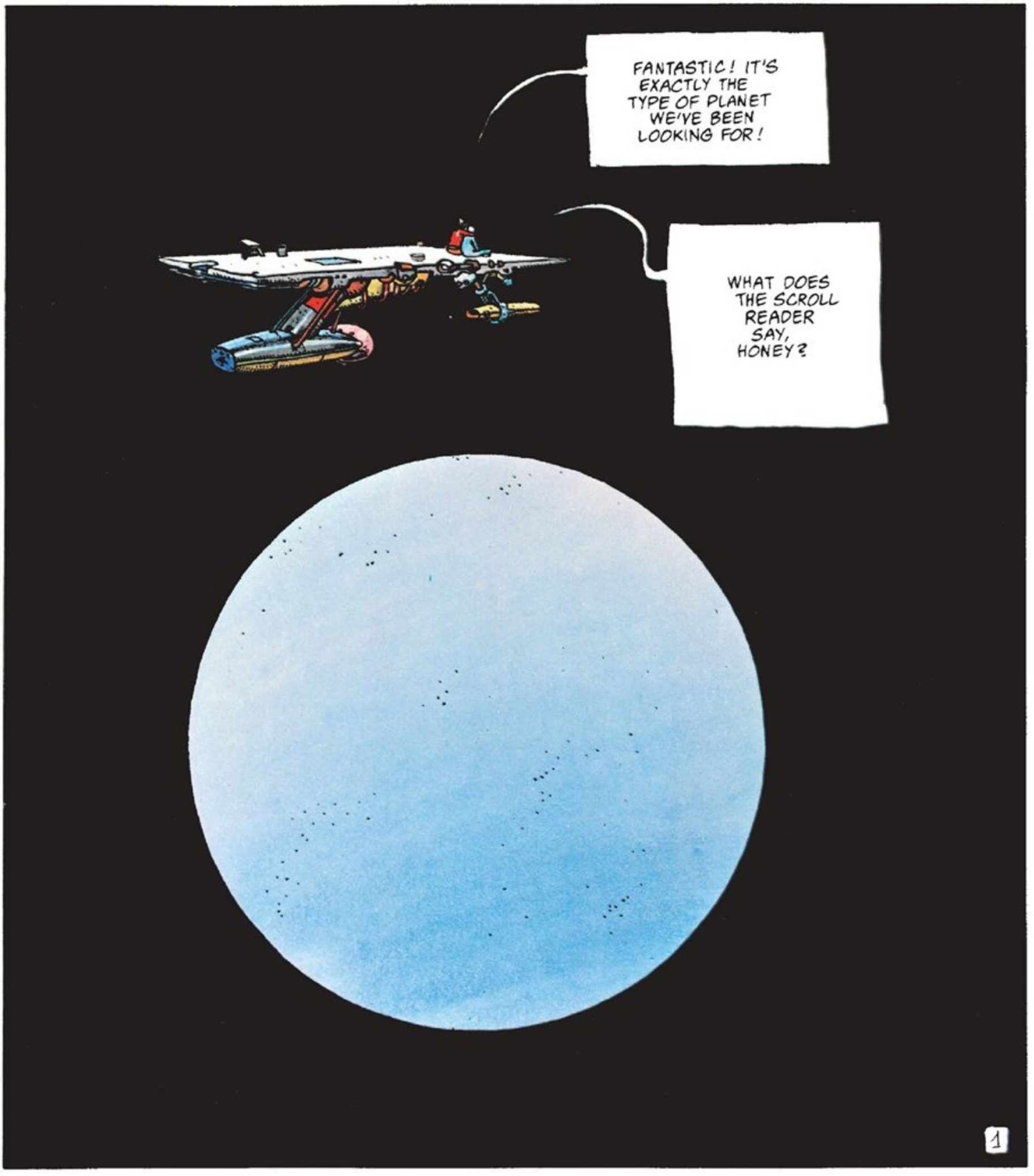


Illustration by Nikola Pisarev

IT'S A SMALL UNIVERSE

MŒBIUS



LET'S SEE... ATMOSPHERE, ATMOSPHERE... EARTH TYPE! *PERFECT!* WEATHER... IONIZATION... RADIATION! IT'S ALL *VERY GOOD!* AND THERE'S ONLY ONE CONTINENT!

YES, IT MUST BE THAT S-SHAPED LAND MASS BELOW!

LET'S GO, TORMY! AFTER ALL THAT TIME IN SPACE, I CAN'T WAIT TO FEEL SOME HARD GROUND UNDER MY FEET!

MY LOVE...

I LOVE YOU.

MOI AUSSI

MŒBIUS 76 2

?!!

IT'S A SHIP! ...A SHIP!

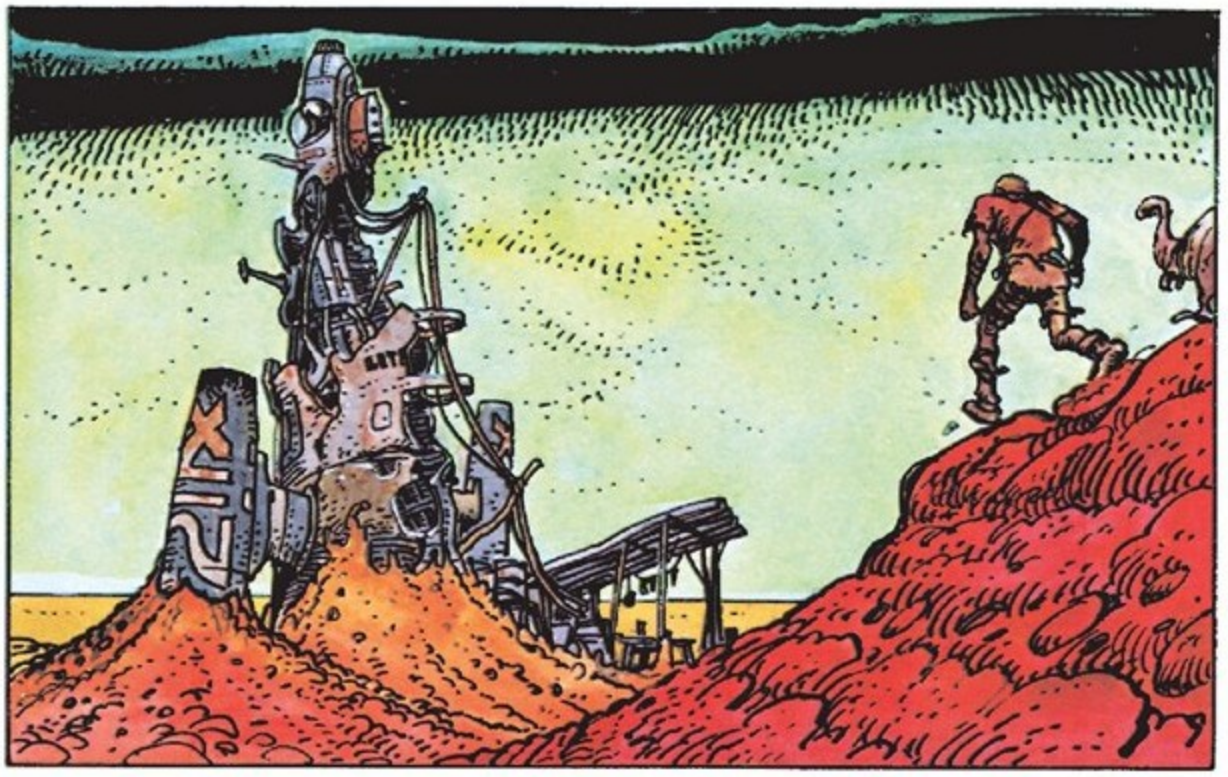
ROOF!

ROOF!

C'MON, MAX, OL' BOY, THEY'VE COME! I *KNEW* THEY'D COME SOMEDAY!

NOEBANS

3





I HOPE WE AREN'T GOING TO MEET SOME KIND OF BAD-TEMPERED CREATURE!

DON'T WORRY. I SHOW NO NATIVE LIFEFORMS EXCEPT FOR SOME KIND OF HARMLESS *REPTILE*. AS FOR THE FLORA, IT'S PRACTICALLY--

OH! TORMY! LOOK OVER THERE!

MOEBIUS

4

AMAZING!
INCREDIBLE!

IT'S AN IMPERIUM SPACESHIP!
AND THAT SHAPE...
IT'S A MAN!

INCREDIBLE!

WHY INCREDIBLE?
IT SIMPLY PROVES
THAT THE UNIVERSE
IS A MUCH
SMALLER PLACE
THAN WE
THINK!

HE SAW THE
SMOKE! MAX...!
WE'RE SAVED!

ROOF!

MŒBIUS
5

TORMY, JUST IN CASE, TRY TO BE CAREFUL!

I'M ALWAYS CAREFUL!

IT'S BEEN... IT'S BEEN... OOH, NO!

WE'RE VERY... ER, YOU LOOK... IT'S STRANGE, BUT YOU REMIND ME OF...

TORMY!

LA-BA-JOUE!

6

MŒBIUS.

YOU, BASTARD! I KNEW WE'D MEET AGAIN SOMEDAY!

?

LABAJOUE! BUT HOW...?

?!!

ROOF

BASTARD! AT LAST, I'VE GOT YOU!

GARGLE!

TORMY!

STOP! STOP! OR I'LL KILL YOU!

BASTARD... BASTARD...

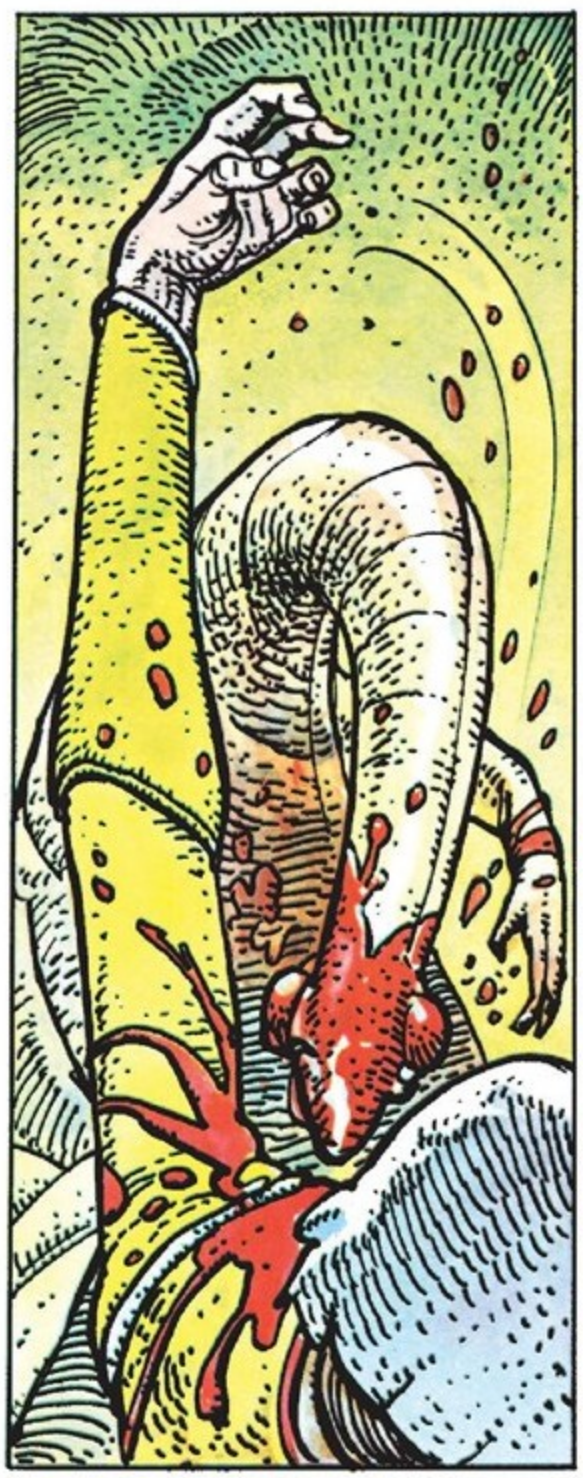
BAS...

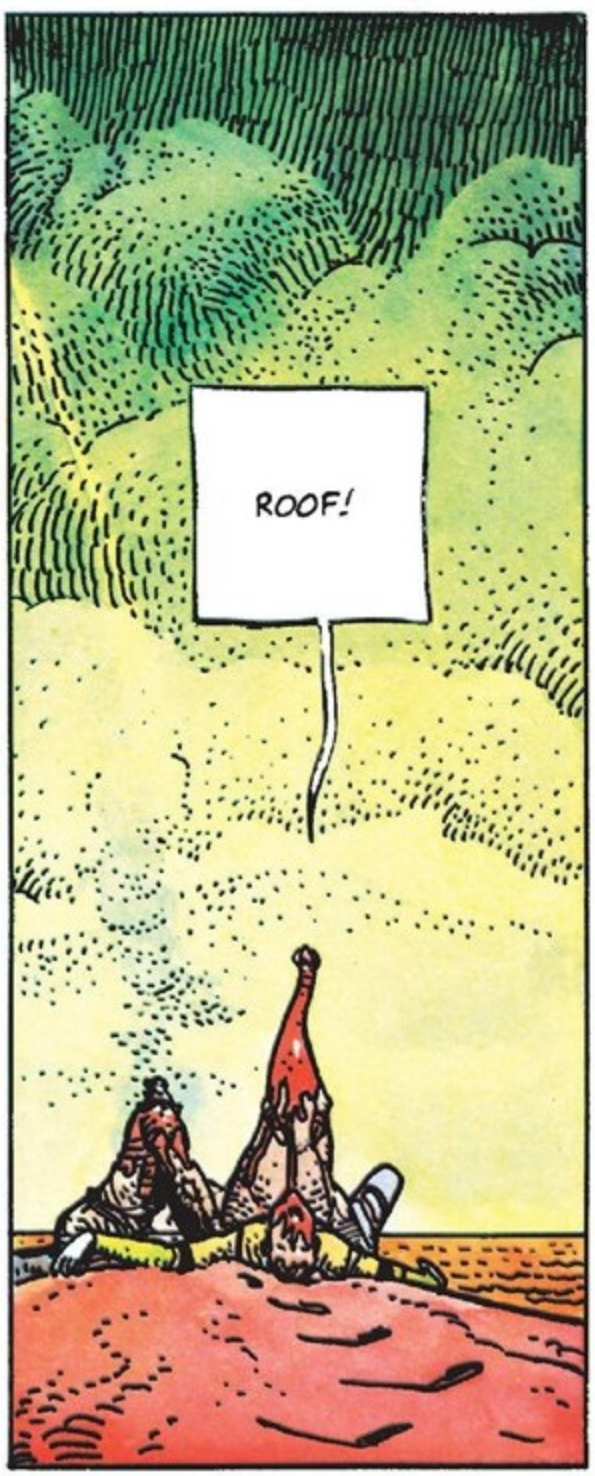
ROOOF!

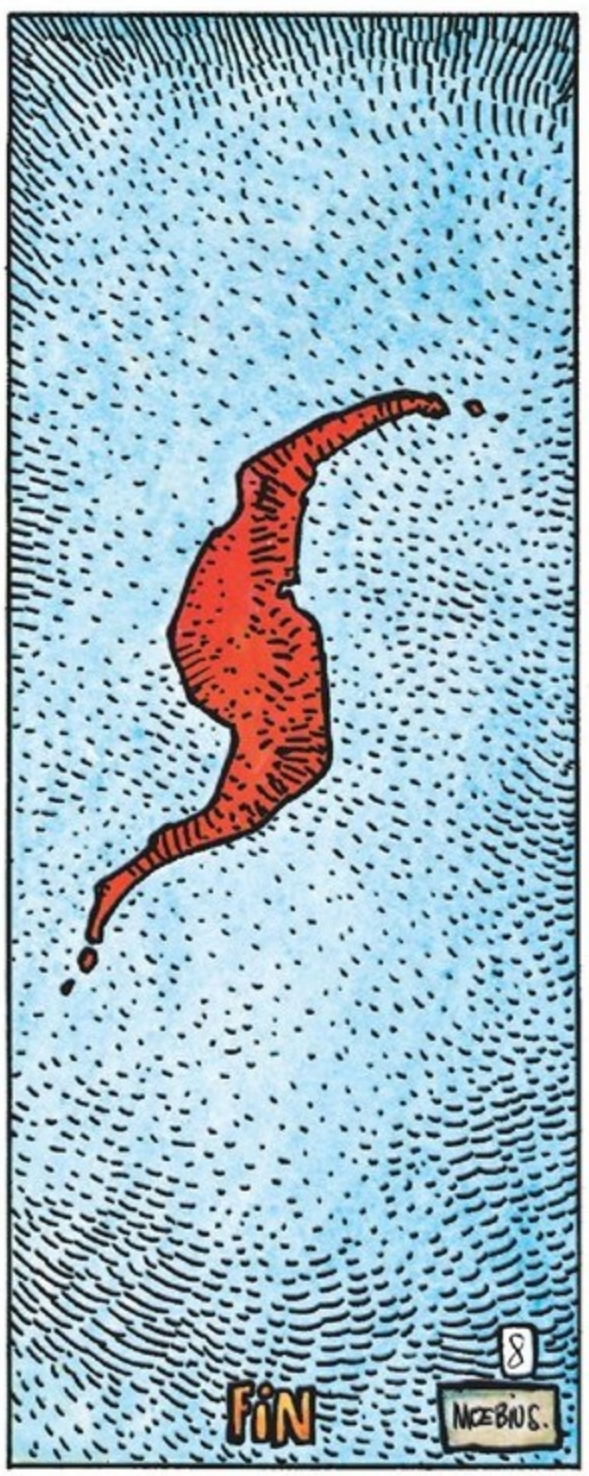
MŒBIUS

7






ROOF!


FIN
8
NICEBUG.

RESOURCE by Nikola Pisarev













THE SATELLITES HAVE DETECTED A LARGE MINERAL FIELD, BUT IT'S HARD TO GET CLOSE TO IT.

DUE TO ALL THE ROCKS SURROUNDING THE MINERAL, WE'VE GOT TO LAND WAY BACK HERE. IT'S GOING TO BE A LONG WALK, BUT WE CAN MAKE IT.

DOWN WE GO!

EVERYBODY GOOD TO GO? RUN DIAGNOSTICS ON OXYGEN SENSORS, COMMUNICATIONS DEVICES, AND ALL OTHER SYSTEMS.

RED? KAY? EIGHT? DO YOU READ ME?

LOUD AND CLEAR, WILL!

WHY DID YOU BRING A GUN TO MARS? THE NEAREST COP IS 56 MILLION KILOMETERS AWAY.

JUST IN CASE.

MOVE OUT!

WE HEAD WEST. WE HAVE ENOUGH OXYGEN FOR 60 HOURS, THAT SHOULD GIVE US ENOUGH TIME TO REACH THE LOCATION, GRAB THE MINERAL, AND MAKE OUR WAY BACK.

WE'LL REACH IT BY NIGHTFALL TOMORROW.

KEEP UP, KAY!

THERE WERE SOME RUMORS THAT THE GOVERNMENT SENT SEVERAL EXPEDITIONS AND ALL OF THEM DISAPPEARED.

AND I HEARD THAT ZED WAS PUTTING TOGETHER A TEAM TO MARS LAST YEAR, BUT I DON'T KNOW HOW IT ENDED.

NORMAL PEOPLE DON'T WORK WITH ZED.

ALSO, I HEARD THAT THE MINERAL HAS A STRANGE EFFECT ON YOUR PSYCHE.

I DIDN'T KNOW YOU HAD A PSYCHE!

PEOPLE CAN SAY WHATEVER THEY WANT. ALL OFFICIAL INFORMATION IS CLASSIFIED. ALL I'M INTERESTED IN IS THE BLACK MARKET PRICE OF THE MINERAL, AND IT'S ENORMOUS.

IT'S GETTING DARK REAL FAST, WE CAN'T CARRY ON.

WE'LL CAMP HERE FOR THE NIGHT. TRY TO GET SOME SHUT-EYE. WE'VE GOT A LONG DAY AHEAD.

TOMORROW OUR LIVES ARE GONNA CHANGE.

I DON'T GET IT...

NO, NO, NO!
THIS CAN'T BE TRUE!

WHAT HAPPENED, KAY?

MY OXYGEN IS LEAKING!
I ONLY HAVE ENOUGH LEFT FOR THREE OR FOUR HOURS!

CALM DOWN!
WE'LL FIGURE SOMETHING OUT!

EASY THERE,
BREATHE SLOW,
DON'T WASTE
YOUR OXYGEN.

I HAVE TO GET BACK TO THE SHIP!

I CAN MAKE IT!

HE'LL LEAVE US ALL HERE TO DIE ONCE HE GETS TO THE SHIP.

WE CAN'T LET HIM.




WHAT HAVE YOU DONE?! YOU KILLED KAY!


IT WAS THE ONLY WAY.




THAT'S ODD... LOOKS LIKE HIS SENSORS WERE FRIED, BUT HIS OXYGEN WAS FINE.



LET'S JUST ALL CALM DOWN. THIS IS MARS, AND WHO KNOWS WHAT COULD'VE HAPPENED.

LET'S JUST AGREE THAT IT WAS AN ACCIDENT.

THAT WAS NO ACCIDENT.

LOOK ON THE BRIGHT SIDE: NOW WE GET TO SPLIT THE MONEY THREE WAYS INSTEAD OF FOUR. RIGHT, RED?

HOLD IT. I NEED YOU TO DO SOMETHING FOR ME.

GIVE ME THE GUN.

WHAT DO YOU WANT IT FOR?

JUST IN CASE.

YOU WANT IT?

GIVE ME THE GUN!

TAKE IT.

WILL!

WILL!

WILL, HELP!

HE'LL KILL US ALL!

I'M SORRY, EIGHT,
BUT WE HAVE TO GO.

I KNOW WHAT YOU'RE THINKING. BUT YOU'RE WRONG.

WE'VE ALMOST REACHED OUR GOAL. AND IT'S VERY IMPORTANT TO ME THAT WE REACH IT TOGETHER.

AT THIS POINT IT'S EVEN MORE IMPORTANT THAN THE MONEY.

WHEN I PICKED UP THE MINERAL EARLIER, IT FELT AS IF IT SPOKE TO ME. LIKE IT WANTED ME TO KNOW WHERE TO FIND IT, YOU KNOW?

YOU'RE CRAZY.

NO, NO. I'M NOT CRAZY. ON THE CONTRARY, I'M VERY RATIONAL.

WE'RE HERE.

ALL WE HAVE TO DO IS GO DOWN THAT CANYON.

IT'S REMARKABLE!

ARE YOU SURPRISED WE MADE IT?

A BIT. IT WASN'T AN EASY ASSIGNMENT. AN EXPENSIVE FLIGHT, WITH SOME DIFFICULT TERRAIN, A LARGE OXYGEN SUPPLY. TOO MUCH FOR THIS KIND OF EXPEDITION.

IT SEEMED IMPOSSIBLE FOR JUST ONE MAN, SO I FIGURED OUT THAT I NEEDED MORE PEOPLE.

THE POINT OF NO RETURN IS TWO HOURS AWAY, WILL.

WE DON'T HAVE ENOUGH OXYGEN TO GO BACK.

THERE IS NO WAY BACK.

SO, WE'RE JUST GONNA DIE HERE?

JUST YOU.

YOU DON'T HAVE ENOUGH OXYGEN FOR THE TRIP BACK, BUT I DO.

I'LL PICK YOUR TANK AS WELL AS THE ONES LEFT BY YOUR FRIENDS ON MY WAY BACK.

AFTER ALL... PEOPLE ARE THE GREATEST RESOURCE!

JUST LOOK AT HOW MAGNIFICENT IT IS, EIGHT!

THE PERFECT GEOMETRIC SHAPE. IT'S AMAZING!

WHAT?

WHERE ARE YOU TAKING ME?

WHAT DO YOU WANT TO SHOW ME?

I'M THE ONLY MAN WORTHY OF SEEING IT!

YOU CHOSE ME!


I KNOW...
I HAVE TO HELP YOU...
HELP YOU BECOME WHOLE AGAIN!
OXYGEN...





INTERGOVERNMENTAL OUTER SPACE ALLIANCE
CONCLUSION OF THE COMMISSION'S REPORT:

Bacteriological contamination of the Martian atmosphere and soils.
Meteorological degradation and magnetic field affected.
Significant civilian casualties.
Total failure of the terraforming processes.

Imperative and immediate need to intervene.

CLEAN SWEEP protocol activated.

CARGO SHIP: PHOBOS
CREW: SIX MEMBERS
CARGO: THERMO-NUCLEAR BOMB

SPACE FLIGHT DURATION:
227 DAYS
DISTANCE FLOWN:
54.6 MILLION KM

CANAL 6-7, RADIO CHECK.

TESTING RADIO SIGNAL: CLEAR SIGNAL.

LEVEL-4 SEISMIC ACTIVITY IN SECTOR 42. VEHICLES APPROACHING THE RESTRICTED ZONES.

GROUND CONTROL TO CONVOY 1: WHAT IS YOUR STATUS? *OVER.*

GROUND CONTROL, THIS IS CONVOY 1. WE ARE CROSSING THROUGH THE GRID SECTOR 165/49. APPROXIMATE SPEED: 96 MPH.

KRRNNN

APPROACHING THE NEST TWO CLICKS NORTH OF THE BASE.

TERRAIN IS A LITTLE ROUGH. WE'LL TRY TO FIND A SMOOTHER PATH.

COPY THAT, CONVOY 1. GROUND CONTROL TO LABTECH 1. CONFIRM YOUR POSITION. HOW DO YOU COPY? *OVER.*

THIS IS LABTECH 1. CURRENTLY ON PATROL IN SECTOR RH-441. APPROACHING SENSITIVE SITE. *OVER.*

DRRRRRRN

LABTECH 1, I COPY 3/5. SWITCH TO FREQUENCY 225.5. ALPHA, LIMA, VICTOR. PLEASE CONFIRM. *OVER.*

ROGER THAT. FREQUENCY ALPHA, LIMA, VICTOR 5.

VISUAL CONTACT ESTABLISHED.

E.T.A. 22-0 MICROS. OVER.

VRWNWN

TECH 213

0213

COPY THAT, LABTECH. FINISH YOUR INSPECTION AND REPORT BACK. GOOD LUCK!

OVER AND OUT!

OUR FIRST OUTDOOR DRIVE, MILLIONS OF MILES FROM EARTH! YOU HANGING IN THERE, GIBBS?

I'M FINE, GIVE OR TAKE DIZZY SPELLS, ATROPHIED MUSCLES, AND NASAL CONGESTION!

THAT WAS YOUR FIRST LONG-DURATION SPACE FLIGHT. THE WORST PART'S OVER! WE'RE HERE!

MY MAIN CONCERN IS PUTTING AS MUCH DISTANCE BETWEEN US AND THAT EXPERIMENTAL BOMB! TO THINK WE SPENT SEVEN MONTHS WITH THAT PAYLOAD ON BOARD!

WE'LL BE FAR AWAY BY THE TIME IT DETONATES!

IF THIS THING WORKS, WE CAN TURN MARS INTO AN ALTERNATIVE PLANET.

GIVEN THE DISASTERS ABOUT TO HIT EARTH OVER THE NEXT CENTURY, WE WON'T HAVE ANY CHOICE BUT TO BECOME A MULTI-PLANET SPECIES!

SAYS A LOT ABOUT HUMAN NATURE, DOESN'T IT, COMMANDER? ASSERTING OURSELVES VIA PURELY DESTRUCTIVE MEANS...

WE'RE TASKED WITH A MILITARY MISSION, GIBBS. THE MOST IMPORTANT ONE IN THE HISTORY OF MANKIND.

SAVE THE MORAL DEBATE FOR ANOTHER TIME AND HELP ME ARM THIS PUPPY INSTEAD.

AFTER THE EXPLOSIONS, AND ONCE THE PLANET'S INNER CORE IS REBOOTED, THE MAGNETOSPHERE WILL BE RE-ESTABLISHED AND WE WILL HAVE SAVED MARS.

KRUONNK

WRUNK

NOT TO WORRY, GIBBS. THE R.T.G.S ARE INDESTRUCTIBLE, EVEN IN THE MOST EXTREME CONDITIONS.

WOOOOSHHHH

WHAT THE--?

WE'RE CAUGHT IN A STORM, GIBBS! RUN FOR COVER!

I CAN'T SEE ANYTHING!

OOOOOOOO

GIBBS, WATCH OUT!!

USAF

GIBBS!

03:48:55

BECAUSE OF THE SOLAR ERUPTIONS, EXPOSURE TO RADIATION WAS MAXIMAL... NO ARMORING COULD HAVE WITHSTOOD IT. THE ENTIRE CAMP WAS DESTROYED.

THEY ALL DIED A HORRIBLE DEATH!

KHAN

2,000 MILLIRADS PER DAY! THERE MUST'VE BEEN MULTIPLE CAUSES OF DEATH.

THEY WEREN'T WEARING ANY PROTECTION. THAT'S INCONCEIVABLE...

NOT MUCH LEFT FOR US TO DO HERE. EXCEPT TO CHECK THE ANTI-RADIATION SHELTER.

0213

NOTHING BUT DEBRIS, AND EVERYTHING'S COVERED IN REGOLITH.

I DOUBT THERE ARE ANY SURVIVORS, BUT IF THERE ARE, THAT'S WHERE THEY WOULD BE. LET'S GO.

03:15:08

LABTECH, THIS IS CONVOY! GIBBS IS INJURED. REQUESTING IMMEDIATE MEDICAL ASSISTANCE! EN ROUTE NOW TO YOUR SECTOR. OVER!

COPY THAT, CONVOY! HAVE MADE MAJOR DISCOVERY AND AWAIT YOUR ARRIVAL! OVER!

COPY THAT! GIBBS WAS STRUCK BY DEBRIS BUT FLIGHT SUIT INTACT!

LENNOX

WE GOT CAUGHT IN A MAJOR STORM! I THINK HE'S JUST KNOCKED OUT...

BRING HIM TO THE CONTROL ROOM. DR. KAHN IS WAITING FOR YOU.

AF-3003

THIS IS THE ONLY LOCATION WHERE THE SURVIVAL SYSTEMS HAVE REMAINED INTACT.

A-23

THE ATMOSPHERE IS MORE STABLE IN HERE. THE GENERATOR WASN'T DAMAGED BY THE WEATHER.

THIS WAY, COMMANDER. THE DEPOT IS DIRECTLY ACROSS.

WHAT DID YOU MEAN BY "DISCOVERY," PALERMO?

I THINK WE NEED TO SERIOUSLY CONSIDER ABORTING THIS MISSION. THE SITUATION IS... ASTONISHING! FOLLOW ME, THEY'RE ALL IN HERE. YOU'LL SEE WHAT I MEAN!

"THEY"?

WHAT HAPPENED HERE?

AH, COMMANDER, YOU'RE HERE AT LAST! COME CLOSE, LISTEN, AND SEE FOR YOURSELF!

YOUR BEING, INSIDE YOUR BODY AND BEYOND... PREOCCUPIED WITH SURVIVAL AND COMMUNICATION. HHH...

WHAT'S HE BABBLING ABOUT?

"HE" IS THE FOURTH BODY TO HAVE COMMUNICATED WITH US, ALBEIT IN A VAGUE MANNER. IT'S VERY DISTURBING...

BUT THEY'RE DEAD! I DON'T GET IT...

THESE MEN WERE WORKERS WHO SOUGHT REFUGE IN THE SHELTER AND THEN DIED OF DEHYDRATION.

SO WHO'S TALKING, THEN, IF NOT THE CORPSES?

SOME SORT OF EXTRATERRESTRIAL ENTITY. WE CONVERSED WITH IT LONG ENOUGH TO COME TO THAT CONCLUSION WITH UTMOST CERTAINTY!

ARE YOU SERIOUS?

IT'S PURE SPIRITUAL ENERGY. A SORT OF NOMADIC SPIRIT IN PERPETUAL MOTION. IT'S VERY COMPLEX, BUT WE ARE DEALING WITH AN ALIEN HERE, COMMANDER!

AND TO THINK WE SPENT DECADES SENDING OUT RADIO SIGNALS HOPING TO MAKE CONTACT!

HHH... A DEEPER UNDERSTANDING OF YOURSELVES AND YOUR PURPOSE IN THIS UNIVERSE...

LOOKS LIKE HE'S USING UP THE LAST RESOURCES IN THESE BODIES. HE'S MOVING ON TO THIS ONE NOW.

FINAL PHASE OF RIGOR MORTIS. THEY DIED THIRTY-SIX HOURS AGO, TOPS.

KHAN

BASED ON THE STANFORD SCALE, THIS ENTITY HAS IMPRESSIVE COGNITIVE CAPABILITIES! A BEING WITHOUT A PHYSICAL BODY, INVISIBLE, MERGING WITH MINDS HE FEEDS OFF IN ORDER TO COMMUNICATE!

WE ARE DEALING WITH A SUPER-INTELLIGENT, POST-BIOLOGICAL FORM THAT'S MUCH HIGHER ON THE EVOLUTIONARY LADDER THAN WE ARE!

HOW DO WE KNOW WE'RE NOT JUST EXPERIENCING A FORM OF COLLECTIVE HALLUCINATION? I'VE SEEN THAT REACTION BEFORE, CAUSED BY LACK OF OXYGEN.

MARS HAS THE SAME RESOURCES AS EARTH. THE PRESENCE OF A LIFE HERE IS NOT A MIRACLE. IT'S AN AMAZING DISCOVERY!

MAYBE... DOC, HOW'S GIBBS DOING?

GIBBS

HE'S IN NEED OF URGENT CARE, COMMANDER! IF HE DOESN'T RECEIVE IMMEDIATE TREATMENT, I FEAR THE WORST...

FOR AN ABDOMINAL WOUND?

HE'S PRESENTING ALARMING SYMPTOMS.

IF THERE'S INTERNAL BLEEDING, HIS LIVER WILL START TO FAIL. THE IMPACT WAS LATERAL AND CAUSED INTERNAL ORGANS TO RUPTURE... AND WITH THE GRAVITY ON MARS, HE COULD GET AN EMBOLISM.

HE NEEDS SURGERY!

GIBBS

WITHOUT IMAGING TO CONFIRM IT, THAT'S A LITTLE HASTY, DOC! PLUS, GIVEN THE STORM AND THIS "DISCOVERY," IT'S A DELICATE SITUATION...

WE SHOULD REALLY THINK ABOUT ABORTING THIS MISSION, COMMANDER. WE DON'T HAVE A CHOICE.

...YOUR SPECIES IS... SO STRANGE AND CURIOUS. FULL...OF RESOURCES... A FRAGILE EXISTENCE... SO TEMPORARY.

HIS ENGLISH IS FLAWLESS. BUT LENGTH OF COMMUNICATION IS GROWING MUCH SHORTER. IT MUST THEREFORE DEPEND ON THE BODY HE'S OCCUPYING.

AND YET, THE CORPSE'S BRAIN IS NOT THE MAIN VEHICLE... HE MUST BE DRAWING FROM SOURCES BEYOND THAT!

LIKE THE MAN'S SPIRITUAL NATURE, DR. KHAN? THE SUPER-CONSCIOUS, OR THE DEAD MAN'S SOUL?

MAYBE. BUT THEN HOW CAN WE BE SURE THIS "SUPER-INTELLIGENT" ALIEN ISN'T OF A MALEVOLENT NATURE?

IMAGINE, INSTEAD, WHAT AMAZING POSSIBILITIES THIS GIVES US! WITH THEIR GENETIC GENIUS, WE CAN INCREASE THE COMPLEXITY OF OUR DNA AND IMPROVE THE HUMAN RACE!!

AND WHEN DOES THE "CREATION" OF THIS ENTITY DATE BACK TO? HOW LONG DID IT TAKE TO EVOLVE? AND WHAT FREQUENCY DOES IT USE TO COMMUNICATE?

LIFE... LIFE IS WHAT...

.. IS WHAT HAPPENS...WHEN YOU'RE BUSY MAKING OTHER PLANS...

CHECK IT OUT! HE SWITCHED BODIES AGAIN!

THOSE... THOSE ARE LYRICS FROM A JOHN LENNON SONG. DID HE MAKE THE CONNECTION WITH YOUR NAME, COMMANDER?

THAT'S INCREDIBLE! DID THIS ALIEN DEVELOP A SENSE OF HUMOR?

VERY FUNNY! I THOUGHT HE WAS QUOTING ALLEN SAUNDERS... BUT SINCE WE'RE IN THE TWILIGHT ZONE, I, TOO, HAVE A QUESTION FOR HIM...

LENNON

WHAT WALKS ON FOUR FEET IN THE MORNING, TWO IN THE AFTERNOON, AND THREE IN THE EVENING? I CAN'T WAIT TO HEAR HIS ANSWER!

LET'S BE SERIOUS, HERE, COMMANDER: THIS EXTRATERRESTRIAL DISCOVERY COULD CHANGE ALL OUR CONCEPTS OF SCIENCE, PHILOSOPHY, RELIGION...

THIS WHOLE ECOSYSTEM IS VERY FRAGILE. WE NEED TO BE DELICATE.

IF THEY ARE THIS SUPERIOR TO US, THERE IS A LOT TO FEAR. THE HISTORY OF ADVANCED CIVILIZATIONS ENCOUNTERING MORE PRIMITIVE ONES IS NOT THAT GREAT.

KRRK... CONVOY, THIS IS GROUND CONTROL. URGENT MESSAGE! IMMEDIATE PRIORITY!

WE HAVE ENGINE FAILURE ABOARD THE SHIP. TAKEOFF COMPROMISED. ABORT THE MISSION! I REPEAT: ABORT THE MISSION. PLEASE COPY. *OVER!*

THAT'S A SIGN, COMMANDER!

GROUND CONTROL, THIS IS CONVOY. I COPY 3/5. MISSION ABORTED. INITIATING DISMANTLING. *OVER.*

YOU WIN, PALERMO. WE'RE LEAVING!

WISE DECISION, COMMANDER. NOW WE CAN SHARE OUR AMAZING DISCOVERY!

MMU STS - 51 - A

MALFUNCTION

X-AXIS Y-AXIS Z-AXIS

SHIT!

THE FUSION MECHANISM MUST NOT BE WORKING PROPERLY.

THE SIGNAL WASN'T DETECTED!

THAT... THAT'S IMPOSSIBLE! TRY AGAIN!

01:23:28

GIBBS IS DEAD... THIS MISSION WILL HAVE BEEN FOR NOTHING AND WE WON'T HAVE MADE A DIFFERENCE...

8-A

THE IGNITION MECHANISM IS BROKEN. IT'S SUPPOSED TO PREVENT THE SECOND PHASE OF URANIUM FUSION!

RADIO CHECK! RADIO CHECK! THIS IS CONVOY. COME IN, CONTROL!

SHIT! I'M NOT GETTING THROUGH. THE RADIO'S DOWN! WE CAN'T JOIN THE SHIP!

AND THIS BOMB WASN'T DESIGNED TO BE DISMANTLED MANUALLY.

WE'RE STUCK HERE WITH NO RADIO AND NO HOPE OF MAKING IT OUT ALIVE. LENNON, YOU NEED TO FIND US A WAY OUT OF THIS MESS!

KEEP YOUR COOL, KHAN!

8-A

YOU KNEW THE RISKS INVOLVED WHEN YOU ACCEPTED THIS MISSION!

THAT WAS BEFORE I KNEW ABOUT HOW BAD YOU WERE AT CONFLICT MANAGEMENT...

WHAT DO WE DO, DR. KHAN? WE'RE SCREWED...

16

...YOUR SPECIES...

...PLAYS NO MAJOR ROLE IN THE UNIVERSE...

WE TRAVELED ACROSS YOUR SOLAR SYSTEM TO STUDY YOU... INVISIBLE AND UNDETECTABLE...

GIBBS... HIS NEW BODY!

HHHH...

NO, NO, WAIT!

TOO LATE! NOW HE'S GONE, TOO!

THIS IS THE END...

I DON'T ENTIRELY AGREE...

THERE MIGHT BE ONE LAST HOPE...

WARNING

LET'S GIVE THE ALIEN THE MEANS TO COMMUNICATE ONE LAST TIME VIA YOUR BODY, DR. KHAN!

BLAM BLAM

PORCA PUTTANA! BRUTTO FUGLIO DI PUTTANA!

HAI UCCISO KHAN! ASSASSINO! ASSASSINO!*

* HOLY SHIT! YOU KILLED KHAN, YOU SON OF A BITCH! MURDERER! MURDERER!

00:32:05

TIME TO PUT YOUR THEORY TO THE TEST, PALERMO! LET'S HOPE HE COMES BACK TO LIFE VERY QUICKLY...

YOU'RE NOTHING BUT A MURDERER, LENNON.

AND YOU'RE NEXT! PERSONALLY, I DON'T SEE THAT AS A BIG ISSUE, GIVEN WHAT LITTLE TIME WE HAVE LEFT!

AS FOR DR. KAHN, MAY HE FIND THE ETERNAL PEACE OF THE SAMSARA AND REACH NIRVANA.

00:15:02

ONLY FIFTEEN MINUTES TO GO, PALERMO.

IF KHAN DOESN'T HURRY AND COME BACK TO LIFE, I'M GOING TO HAVE TO PUT MY MONEY ON YOU!

I... I'M GOING TO BE SICK...

00:05:48

PADRE NOSTRO, CHE SEI NEI CIELI, SIA SANTIFICATO IL TUO NOME, VENGA IL TUO REGNO, SIA FATTA LA TUA VOLONTÀ, COME IN CIELO COSI IN TERRA...

00:00:23

TIME'S UP, DR. PALERMO. I'M REALLY SORRY, BUT I HAVE NO CHOICE. ONLY A FEW SECONDS TO GO, AND NO SIGN OF--

HHH... YOU... WANT THE... ANSWER.







00:00:02

00:00:01



SHE PUTS THE SCIENCE IN SCIENCE FICTION:

A Conversation with *Star Trek* Science Advisor, Educator, and Astrophysicist Dr. Erin Macdonald

INTERVIEW BY JAKE THOMAS & AMANDA LUCIDO

When the characters on *Star Trek* are faced with something they cannot understand, they go to their science officers...but where do the shows' writers go when they need science help? To Dr. Erin Macdonald, a brilliant scientist and educator with a PhD in astrophysics and a love for pop culture. Dr. Macdonald joined us at Humanoids HQ one afternoon in May to eat Thai food and talk warp drives, gravitational wave theory, and the enduring cultural impact of *Star Trek*.

JAKE: You started as the science advisor on *Star Trek: Discovery* season 3 and then were brought on to consult on the entire franchise, but can you tell us your personal sci-fi pop culture origin story?

ERIN: I was a little redheaded girl, and *The X-Files* was hugely popular in the nineties. I was obsessed. Dana Scully was the coolest woman in the world, and I just wanted to be her. The Geena Davis Institute did a study about women who watched *The X-Files* growing up and women who didn't, and if you were a medium to heavy viewer like I was, you were something like 50% more likely to become a scientist than a young girl who was not a watcher. They call it the "Scully Effect." And it's one of the first times they've done an official study on how important representation is in media.

J: This led you to work at the Laser Interferometer Gravitational-Wave Observatory just before they won the Nobel Prize. Can you tell us what gravitational waves are at—*aspirationally*, for us—a fifth-grade level?

E: Gravitational waves are like a totally different way of seeing the universe. It's like sound waves. It's obviously not sound, but we're detecting the universe stretching and bending, which is just a completely new sense for how to observe space.

J: Let's get to a couple classic *Star Trek* questions. First of all, what, exactly, is a warp drive?

E: One of the things with spacetime is that if you have mass, you're going to dip it down, like a bowling ball on a trampoline. The lighter you are, the less it dips; thus, it's easier to move through spacetime the less mass you have. Eventually, if you have no mass, like a light particle, you're not dipping spacetime at all, and you just coast in a straight line, which is the speed of light because you just have a massless particle that's moving unimpeded. But that's a constraint. If you want to have a five-year mission to explore strange new worlds, and your nearest star system is four and a half light-years away, it's gonna suck. And so, with the idea of faster-than-light travel, there're a few different ways to go about it. A warp drive uses the concept that nothing on the surface can go faster than the speed of light. But nothing says that spacetime itself can't go faster than the speed of light. So, you take that fabric and you wrap your ship in it, and then that fabric pushes you. It is traveling as a bubble faster than the speed of light, and if you want to go even faster you wrap another bubble around that bubble, and now you're in Warp Factor 2, and then another wrap is Warp Factor 3—you're exponentially increasing your speed.

J: So, the idea is creating a deep enough gravitational well that it folds spacetime in on itself.

E: Yeah, conceptually, you can kind of think of it like that. But then the question is "How?" The idea is, if you want to bend spacetime and you don't have mass, you're going to need energy. $E=MC^2$, right? Energy equals mass times the speed of light squared. So if you take that amount of energy, theoretically, you can bend spacetime that same amount, which is really our inhibitor to warp drive right now because we can't conceive of harnessing that much energy.

J: Do transporters teleport *matter* or *information*? Or, as my buddy and comics writer Rich Douek puts it, "Do transporters really teleport matter, or are they murder machines that just reconstruct a new version of you?"

E: Even if they're transporting the matter, they're still deconstructing you and putting you back together again, so it's going to be murder no matter what. And *Star Trek* really did for a long time have episodes that talked about both of those interpretations. I think we've erred a little bit more on the "Two Rikers" idea—that it is mapping where all of your "stuff" is, then it sends that information as a file, and then they take that file and whatever material they have is used. But if you want to get even darker: if your atoms are being reconstituted into the ship's material soup, you're actually just cannibalizing *everyone*, because that's going to end up as Earl Grey tea somewhere down the line. But like I said, we've kind of erred on the "file" side, but we've never definitively said, "This is exactly what's going on," because there's evidence for both.

J: So there's a lot of attention on Mars at the moment, but I want to talk a little bit about your *Mars versus warp drive* dichotomy.

E: The thing with Mars is that it's a problem, not a solution. It's much harder to go to Mars than it is to fix our climate crisis on Earth, so if we're looking at Mars as a solution, that's a waste of resources. With Mars, there are a lot of practical problems to get there, the main for me being the radiation. We're protected here on Earth because we have a molten core that creates a magnetic field around us—basically a shield that protects us from solar radiation. Mars doesn't have that. Whether it cooled down or there was a catastrophic event that destroyed the molten core, it has no protection from radiation, and as a consequence, no atmosphere. It's not that it's a problem to breathe, or that what few particles are there are mostly carbon dioxide, it's the fact that we would be bombarded by solar radiation. So that's the big problem that we'll have to figure out. I don't think we should dismiss it fully, because space is one of these unifying factors that does manage to capture the imaginations of people. Across borders, across cultures, we all still look up and find ourselves inspired. With warp drive, the issue is that we have a huge unknown, which is that energy. And you can't predict when humans will figure that out. So…yeah, am I irritated every day that capitalism is ruining space? Yes, it breaks my heart.

J: Building off of capitalism's sullying of science, I'd like to discuss sci-fi narratives of hope versus fear. I think a large bulk of science fiction is about danger: the dangers of space exploration, the dangers of technology advancing too fast. The place where you found yourself, *Star Trek*, is one of the few truly hopeful ones. August 2025 will be eighty years since Hiroshima and Nagasaki, which I think was kind of the catalyzing element of a lot of that sci-fi fear that came out of that classic era of the forties and fifties. So how do we navigate these new horizons of sci-fi storytelling

and technology? Are we too afraid? Are we not afraid enough?

E: It depends. Space is dangerous and scary and unknown, and that creates awesome stories. But I think you find in the storytelling that when you're in the horrors of space, and nothing is good, if there is more than one character grappling with those horrors, you also find family, which, for me, is the main theme that draws me to science fiction, and I think draws a lot of people. You may be isolated from everything, but you can still find what it means to have a family. And space is like the ultimate isolator, right? So it's driving all of that home. I think, with *Star Trek*, what's unique about that, like you said, is that it's a bastion of hope instead of just horror. It looks at the potential of humanity. You mentioned Hiroshima and Nagasaki, which I think is completely appropriate in the lead-up to 1966, when *Star Trek* aired. We had the Cold War, the Vietnam War on the horizon, all of this hatred and fear of other cultures. And then this show came around. Having a Black woman, an Asian man, and a Russian man all on the same bridge as leaders—working under a white American man, but still—and valued members of the team was unheard of at that time. There was still so much racism, and we've heard George Takei and Nichelle Nichols talk at length about how their characters were the first some people ever saw being something other than a racial stereotype. It offered hope in a way that it was like, "Nothing is scary. We fixed it. It will be okay." But the point was, and I think what inspired people, was that it was humans' future. It was Earth's. It was explicitly, "This is where Earth is going to go." And I think with science fiction, when you strip away that human aspect and you go far, far into the future, sometimes it just all looks bleak. Space is dark and cold and scary, and we should be afraid of it. But I think there're always stories of hope.

J: Both the arts and science currently are facing a kind of crisis in this country of politicization and people attacking diversity within both institutions. You're someone who's put a lot of work into providing an image of what science can be. What does diversity bring to sciences and narrative storytelling?

E: When I got a postdoc job, I was at a university where they really didn't have that many women. They had women who were PhD students, but they really didn't have many on staff, and I felt a burden, because that was when I was trying to decide if I wanted to leave or not. I felt a big responsibility to stay. Science is known for being very objective. That's part of being a scientist—removing yourself and trying to eliminate biases. But when you have diverse thought in the room, people from different backgrounds and different life experiences, it just trains your brain differently. You need people from all backgrounds because it's going to make the science better. You're going to have better conversations and you're going to challenge each other, and you're going to learn more about the world through that. What I think is great about *Star Trek* is that because it had that legacy of being in 1966, and breaking these grounds—you can always just say, "But it's *Star Trek*. We do this. We break the rules. We try to push society a little bit forward and break new ground." It feels good to create things. And it is an act of resistance.

J: That's also the glory of science fiction. You can have a gay couple in space just existing, and if people say, "But what about all the baggage that they had to go through to get there?" You can say, "It's space, it's the future. And they're fine. We fixed it." The same genre freedom that allows a world where we've found the energy for warp drives also allows a world where race, creed, gender, and sexuality no longer separate us. Space can hold space for visions of progress.

So, I watched a bunch of your videos in preparation for this interview, and my favorite was your "Dr. Erin Explains the Universe" episode about whether or not we can detect warp drives with gravitational waves. You talked to scientists who authored that paper, Katy Clough, Tim Dietrich, Sebastian Khan. The core of the paper, correct me if I'm wrong, is that if there's another civilization out in the stars that has managed to figure out warp travel, as we conceive of it, we should be able to detect them?

E: If you think about *Star Trek: First Contact*, we're not the ones building the warp drive, we're the Vulcans trying to detect warp capability, even if we don't have it ourselves. That's the idea behind it. And because, like I said, gravitational waves are going to emanate from any change to spacetime, building a warp bubble and destroying a warp bubble is going to warp spacetime, so, *would it warp it enough that we would actually be able to make that detection?* And the answer is yes, but we don't have quite the correct detectors to do so right now.

J: Your excitement about the paper, which is far beyond my knowledge, is so infectious. What about that kind of scientific work excites you?

E: I really think science fiction is a unifying factor when it comes to education. I discovered this when I was working as a postdoc and I was teaching Astronomy 101, which is the worst class to teach because everyone just needs a science credit and then they're all pissed that they have to do math; they just wanted to get stoned and look at the stars. I brought up Tatooine because we had just discovered a planet that had two suns, and that was able to connect with them in a unique way. You want an introductory science class to start asking questions and engaging, even if it's about *Star Wars*. And so that's when I started using more science fiction. What scratches my brain about this paper is just the fact that scientists have all this science, their whole life is

just being buried in code and data, and then they're like, "But what if science *fiction*?" And not only are we going to ask that question, but we're going to put time and resources and effort into answering it... That's really exciting.

J: The other thing this paper brought up for me is the mystery around how science happens. It felt artistic in a way, like writers and artists getting together to pitch a comic.

E: That's what I loved about it, too, because it did feel really natural. When we talk about diversity in science, science really comes from conversations. A big part of what's being assigned is just thinking. As a scientist, you think about the little bubble of all of humanity's knowledge, and then you're just trying to expand it ever so slightly. Sometimes those questions come from a single person's mind, but most of the time it comes from someone going, "Hey, I had this idea, is this crazy?" And then someone else goes, "Oh, that's a really interesting, but what if we added this," or, "I know someone who's working on something similar? Let's get them in here." That was how that crowd kind of met—they were working in fairly disparate fields but were able to kind of combine their collective knowledge to say, "Okay, well, we really need someone who knows this." It's community, it's creative thinking and problem solving.

J: Look, I love Scully, too, I'm a huge *X-Files* fan, but Scully can do everything all the time and is an expert in every medical field imaginable. There's no one like that.

E: Even *Star Trek* falls into this. They have a "science officer" who "sciences," and rarely do we see them with a whole team. I think that's where a lot of these conspiracy theories come in because people think that there're just two or three scientists who hold all of this knowledge, and they don't realize that it's a collective effort of hundreds, if not thousands, of people all working together and bouncing ideas around. Science is one of the most borderless, community-driven enterprises that we have in our world.

J: I think "The Great Man" theory is detrimental to our society—the idea that there's this one person who does it all. It's the American myth of the Great Leader permeating our science.

E: Even Einstein, who really was incredibly intelligent, and approached science in a creative way, still went to conferences, talked to people, got ideas from other people's research. He was building on what other people were doing, and albeit maybe in a more creative or brusque or more resourced way than other people would have, but it was still an act of a community to do all of that work.

AMANDA: I think this notion is perpetuated because the general public doesn't even know where to begin comprehending this. They need a liaison, a Carl Sagan, someone to take it all and make it digestible. I think that having the personality, the relatability, and the capability to comprehend, communicate, and synthesize on behalf of other people, of a community, is important (albeit risky). I am curious how you found yourself in that position.

E: I think it comes from the fact that [the science itself] didn't come naturally to me. There are people who can speak math immediately, but I never could, so I had to come up with analogies and comparisons to try to explain it in different ways to wrap my own brain around it. I get a lot of joy out of teaching, making connections with other things that I love and know other people love. I don't think I'm a genius; I'm constantly reflecting and trying to improve the way I communicate with people and find other avenues to do it.

A: May I ask, what's your relationship, if any, with spirituality?

E: It's a good question. And it's one I've grappled with quite a bit. So I've actually kind of gotten into pagan witchcraft more because of two factors. One is the ancestors. I feel a really strong ancestral tie. But also just the cycle of nature, the fact we have these seasons, and the cycle of the earth and the moon, I feel really drawn to that spiritual element.

J: So much of the early science came from the church.

E: Yeah, it was done by monks, and so it was done with the idea that you're supposed to be stewards of the earth, and nature has given you dominion over this. And so you have a responsibility to understand it and to learn whatever you can about it. But there's stuff we can't explain; you know, science isn't going to give me every answer. So sometimes spirituality can help in that aspect.

A: Where do you stand on transparency and disclosure? And how do you weigh, say, accuracy of information and communication versus responsibility to the people or to science itself?

E: I think people so often think that scientists are keeping stuff from them, and most of the time it has nothing to do with keeping stuff from anyone. It's just that it's going to take so long to explain it. My philosophy when it comes to engaging with the public is to not be afraid to say "I don't know" and be very transparent with that. I'll say, "That's a really great question. I actually don't know the answer." But I think a lot of scientists do a disservice to science communication nowadays because they're so negative. People ask questions and they get shot down and made to feel really dumb. I interact with a lot of people who might not know a scientist at all. I'm the first one that they've ever met. And if I make them feel dumb, they're never gonna ask another question and feel a barrier between them and science. And that starts to create that animosity. So I do feel a really great responsibility.

IN THE WONDERS OF THE UNIVERSE SERIES

BEYOND THE STARS

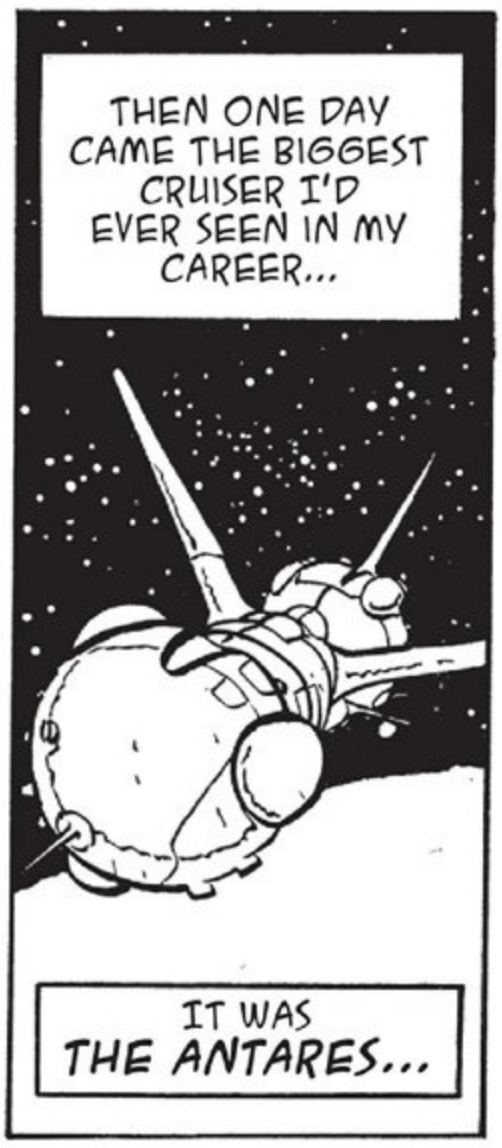
By Serge CLerc




YOU GOT IT, KIDDO! AND KEEP YOUR EARS WIDE OPEN!
SAY! TELL ME ABOUT THE CARGO SHIPS FROM YOUR DAY!


THAT WAS BACK IN THE DAYS OF THE GREAT GALACTIC WARS BETWEEN TERRA AND THE DENEB STELLARS. I WAS JUST A KID, BUT I ALREADY KNEW ALL THE COMINGS AND GOINGS OF THE LOADING DOCKS...
STATIONS
Hotel
Nova Kids


NOT TO MENTION ALL THE WILDLIFE THAT ROAMED AROUND TITAN 6'S ORBITAL STATIONS...
MEGAVISION
VENUSIAN AVENUE
NAT. PARK
FANTASTIC HOTEL


THEN ONE DAY CAME THE BIGGEST CRUISER I'D EVER SEEN IN MY CAREER...
IT WAS THE ANTARES...


I SAW IT ORBIT A BUOY STATION ON THE CONTROL SCREENS OF THE GUARD STATIONS JUST A FEW THOUSAND KILOMETERS AWAY...
PROGRAM
2

I STOOD THERE FOR A LONG TIME, MY EYES WIDE WITH ASTONISHMENT...

OKAY! GO TO 280! HERE WE GO!

IN THE WEEKS THAT FOLLOWED, IT WAS THE TALK OF THE TOWN! THE FABULOUS EARTH SHIP...

AND I HEAR IT'S GOT THREE LIGHT THRUSTERS!

NO!

SOMETIMES I'D CATCH A GLIMPSE OF THE TECHNO-SCIENTISTS AND EARTH CREW LANDING ON TITAN 6...

ONE DAY, WHEN I COULDN'T STAND IT ANY LONGER, I HID ABOARD A SHUTTLE BRINGING BACK AN EARTH CREW...

NSA

THREE MINUTES LATER, WE WERE FLYING OVER ANTARES...

3

CONTACT WITH ANTARES... OVER!

CLICK!

THAT'S IT, OUR LAST LEAVE ON TITAN 6, GUYS. TOMORROW WE'RE OFF TO OTHER STARS!

OTHER WORLDS! HA HA HAA!!

TOMOR-ROW?! PHEW! ABOUT TIME!

MOMENTS LATER, THE CREW ENTERED DECK 3...

I TOOK THE OPPORTUNITY TO SLIP OUT OF THE SHUTTLE, AND THANKS TO MY MUTANT CLASS 2 POWERS, WHICH WERE ALREADY BEGINNING TO MANIFEST IN ME, I MANAGED TO AVOID THE SECURITY SYSTEMS...

CURIOUS! FOR A MOMENT, I THOUGHT I NOTICED SOME ACTIVITY OF UNKNOWN ORIGIN...

HMM! ONE OF MY CIRCUITS MUST HAVE BLOWN AGAIN! I'M NOT GOING TO THE REPAIR CENTER!

...AND TOOK REFUGE IN THE LOWER LEVELS. I SOON DISCOVERED A HOLD FULL OF FRESHLY CUT ***PURPLISH SPORES***, WHICH ENABLED ME TO SURVIVE FOR THE NEXT FEW DAYS...

4

SHHHHHHHHHHH

ASTROPORT

THE SECURITY GUARDS DISCOVERED ME IN THE HOLD, FIVE LIGHT-DAYS AWAY FROM TITAN 6...

YES, A LITTLE HUMANOID FROM TITAN 6...

56

HUH! LEAVE HIM IN THE CARE OF ROBB 580...

...SINCE HE'S THE ONE WHO DETECTED IT! AND GIVE HIM A CABIN NEAR SECURITY! WE'LL LET YOU KNOW WHEN WE DISEMBARK AT THE *"EXOTICS"**!

ANTARES

UNDER-STOOD, COMMAN-DER!

SO THE ROBB 580 BECAME MY CONSTANT COMPANION...

I'LL SHOW YOU AROUND THE SHIP...

SERGE CLERC

5

* *"EXOTICS"*: A GROUP OF PLANETS NOT FAR FROM VEGA...

WE TOOK A "ROLLER" TO MOVE ALONG THE IMMENSE CORRIDORS...

MY NUMBER IS 580, BUT YOU CAN CALL ME *EMILE!*

THAT'S WHAT EVERYONE ON BOARD CALLS ME!

WE SOON REACHED THE ENGINE ROOM...

THE ROBB TOLD ME THAT ONLY THREE CREWMEN WERE NEEDED TO OPERATE THIS *HUGE COMPLEX*...

N·P

WE SPENT THE NEXT FEW DAYS CRISS-CROSSING THE SHIP, MOVING FROM LOWER DECK TO UPPER DECK...

15

...TO THE CORRIDORS ON THE FIRST LEVEL...

6

I SOON BECAME THE MASCOT OF THE ANTARES, AND WAS ALLOWED TO ROAM FREELY IN THE LUXURIOUS UPPER LEVELS WHERE THE PRESTIGIOUS FIRST-CLASS PASSENGERS RESIDED. THIS IS WHERE THE RICH BUSINESSMEN OF DELLA 5 MEET...

...TERRA'S BEAUTIFUL ADVENTURERS IN SEARCH OF EXCITEMENT...

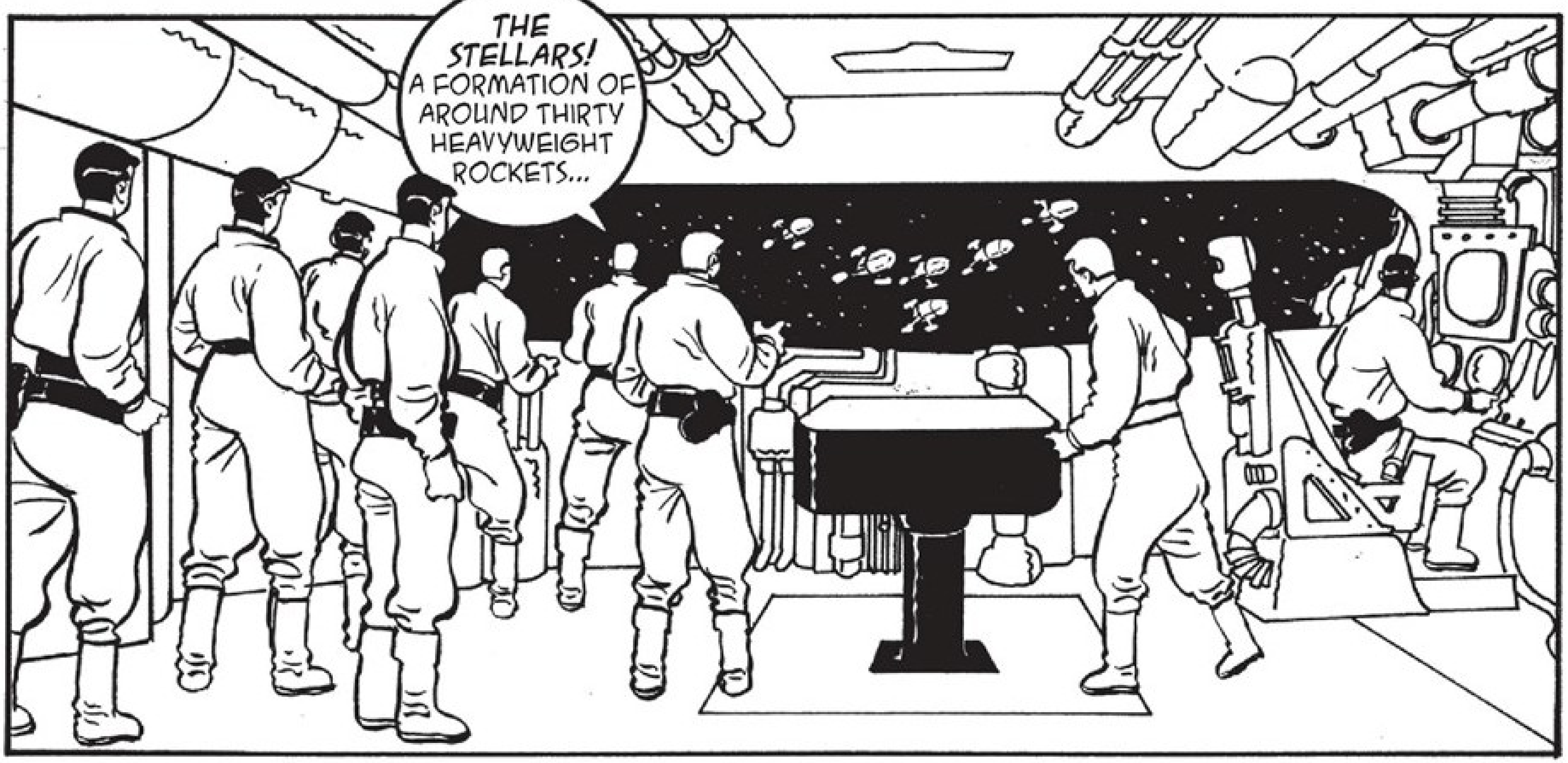
...THE DIVINE CREATURES OF SIRIUS IN SEARCH OF A FILM PRODUCER..

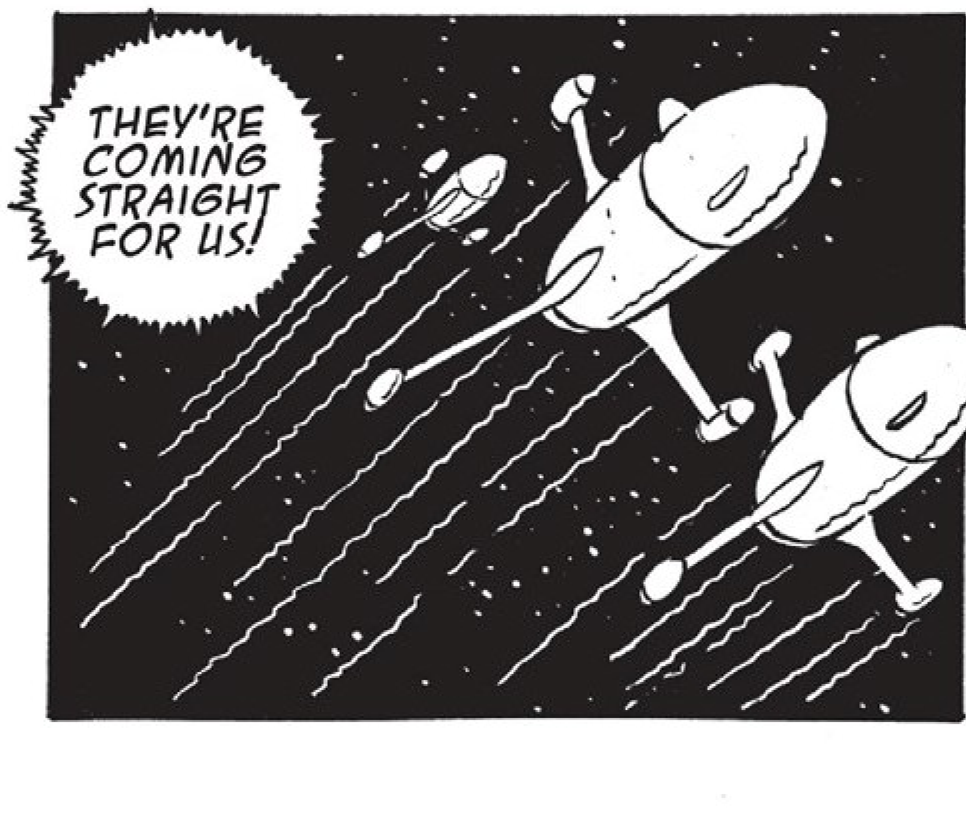
...AND ALL THE TOP PERSONA-LITIES OF VEGA...

7

THE DAYS PASSED SLOWLY, LULLED BY THE SUBTLE HUM OF THE ANTARES LIGHT-MACHINES... WHICH IS WHY, ON THE TWENTIETH DAY, WHEN THE ALARM SIRENS SOUNDED, THE SURPRISE WAS MORE THAN A LITTLE JARRING...










BUT THE CREW-MAN DIDN'T HAVE TIME TO FINISH HIS SENTENCE... ALREADY THE V-CLASS THERMALS WERE CRASHING AGAINST THE HULL OF THE ANTARES...
AAA! BANDITS! THE ANTARES IS PRACTICALLY UNARMED!
AND THEY'RE ATTACK-ING US!
ALERT! ALERT!! ALL CREW TO BATTLE STATIONS!
THE INFERNAL ROUND OF DENEBIAN ROCKETS STRIKING THE CARGO SHIP LASTED FOR HOURS.
PHANTOM LEADER 1 TO ALL UNITS!! NO QUARTER GIVEN! I REPEAT! NO QUARTER GIVEN!!
9

THE EXPLOSIONS INCREASED IN VIOLENCE, CREATING PANIC AMONG THE PASSENGERS...

THERE'S NOTHING WE CAN DO! THERE ARE TOO MANY OF THEM!

AND OUR LASER CANNONS DON'T DO ANY DAMAGE!

GOOD GOD! THE ODDS ARE AGAINST US, BUT WE'LL FIGHT!

THE BLAST OF AN EXPLOSION KNOCKED ME TO THE GROUND, AND THEN CAME THE BLACK HOLE...

ZAMM

WHEN I WOKE UP, EMILE WAS NEXT TO ME. HE TOLD ME ABOUT THE DESTRUCTION OF THE ANTARES, HOW HE RESCUED ME IN AN EMERGENCY BARGE AND HOW, AFTER ESCAPING FROM THE FLAGSHIP, WE HAD REACHED THIS ASTEROID JUNGLE LOST IN THE STARS...

U3

WE SURVIVED AS BEST WE COULD UNTIL A DEEP-SEA COASTER SPOTTED OUR DISTRESS SIGNALS AND TOOK US ON BOARD...

TWO MONTHS LATER WE LANDED AT THE EXOTICS...

I LEARNED THERE THAT EMILE AND I WERE THE ONLY SURVIVORS OF THE ANTARES...

11

THE END

FORGING THE METAL

MARS AIN'T THE KIND OF PLACE TO RAISE YOUR KIDS

The harsh elements of space are a testing ground for survival. It takes the very reaches of our current scientific knowledge to keep people alive in even the smallest areas just outside of the Earth's atmosphere. If the dream of space is to eventually colonize other worlds, mere survival is not enough. Humanity cannot simply live, it must grow, it must propagate. After the explorers come the settlers, and with settlers come families.

It's hard enough to raise a kid on Earth. In America, which vaunts itself as the richest country in the world, childcare prices are skyrocketing and vaccination rates are dropping. Social safety nets seem to be yanked away daily, and parents are told to figure it out, it was their choice to have kids anyways. In fact, there's a very vocal group pushing people to have even more kids. For anyone who has grappled with a family budget, struggled with fertility issues, or white-knuckled their way through a child's serious health crisis, even beginning to imagine what it will take to raise children in the unforgiving environs of space is enough to produce a cold sweat across the brow and a heavy stone in the stomach in anyone not named Elon Musk.

Swann Meralli and **Zac Deloupy's** story "The Source" [p. 92] does little to allay those fears. Set in a desolate alien landscape, a lone figure silently watches over the potential birth of a next generation. It is lonely, grueling work, and success is not a given. Meralli and Deloupy previously collaborated on the graphic novel *Algériennes 1954-1962*, which examined the Algerian War from the point of view of women involved in the conflict, so they are no strangers to narratives of resilient women in trying situations. The story is silent, forcing the reader to concentrate on our nameless protagonist's actions and physical responses. It's a masterclass in visual storytelling from Deloupy (as well as a testament to the working relationship between himself and Meralli) that yields a deeply affecting look at the brutal toll of fighting to keep hope alive during hard times.

While Deloupy and Meralli craft a story out of allegory and extremely heightened emotional turmoil, **Aurélie Crop** shows a more quotidian view of having children in the far future reaches of space in her story "The Olene Flower" [p. 99]. Writing about parenthood isn't new to Crop: her first graphic novel, *Comme une comète* (Like a Comet), is a stark and clear-eyed look at the trials and travails of a mother in the grip of post-partum depression. Her keen instincts for plumbing reality for drama translates well to this sci-fi story. The situations and conversations will sound very familiar to anyone in a cohort of aging professionals who have struggled through the questions of whether or not they want children, just with some small shifts in the details. Instead of going to a fancy fertility clinic in the upscale part of town, the women (and men) looking to get pregnant go to the Olene station on Mars. They wrestle with their midlife crisis at the age of 210. Their searches for connectivity, spirituality, and answers to life's big questions, however, are just like ours.

The differences between parenting today and in **Benjamin Fogel** and **Damien Cuvillier's** "Outcasts of Space" [p. 110] are a bit more stark, but its concerns still feel all too present. Two working parents whose job takes them far from home find themselves in a conflict that risks devastating fallout for the child who waits for their return. The parental desire to sacrifice in order to provide a better future for your children comes up against overwhelming societal forces and a system that only looks at its citizens in the harshest, most utilitarian ways. Everyone is reduced to a number, and only the "good," "clean," and "useful" survive. A good parent is willing to sacrifice much for their children, a society of scarcity will use that instinct against the family like a cudgel. And you thought the useless retreat from work-from-home options was bad!

We close this section as we opened it, with a wordless comic meditation on the all-consuming drive to build a family in the harsh conditions of space. **Yang Weilin** takes a more action-oriented approach in his story "Egg" [p. 123], but the core is no less moving. Weilin, who also contributed a stirring story sans dialogue in *Metal Hurlant* Issue 1, returns here to pose another mystical and mystifying look at the possibilities of alien life. A true believer in the existence of extraterrestrials, Weilin imbues his story with a feeling both reverential and humble, acknowledging that an interaction between humanity and an alien intelligence would be fraught, surreal, and likely dangerous to one or both sides, but there is also a hope that there will be something we can understand about each other. Perhaps they, like us, are looking to feel less alone. Perhaps they, like us, long for nothing more than a safe and healthy family, wherever and however they can find it in this dark and unforgiving cosmos.

—**Jake Thomas**

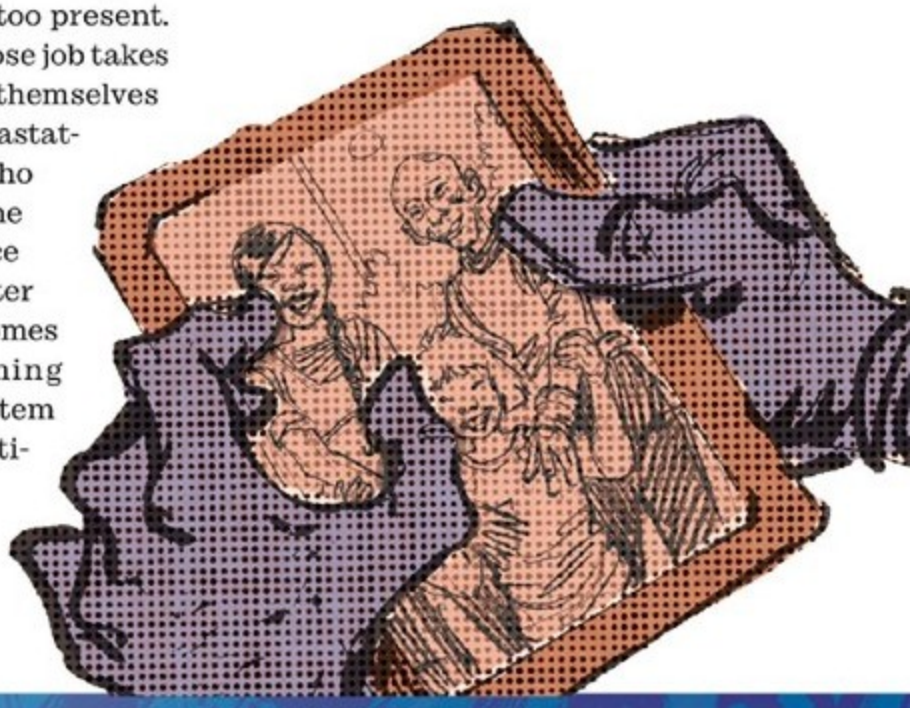
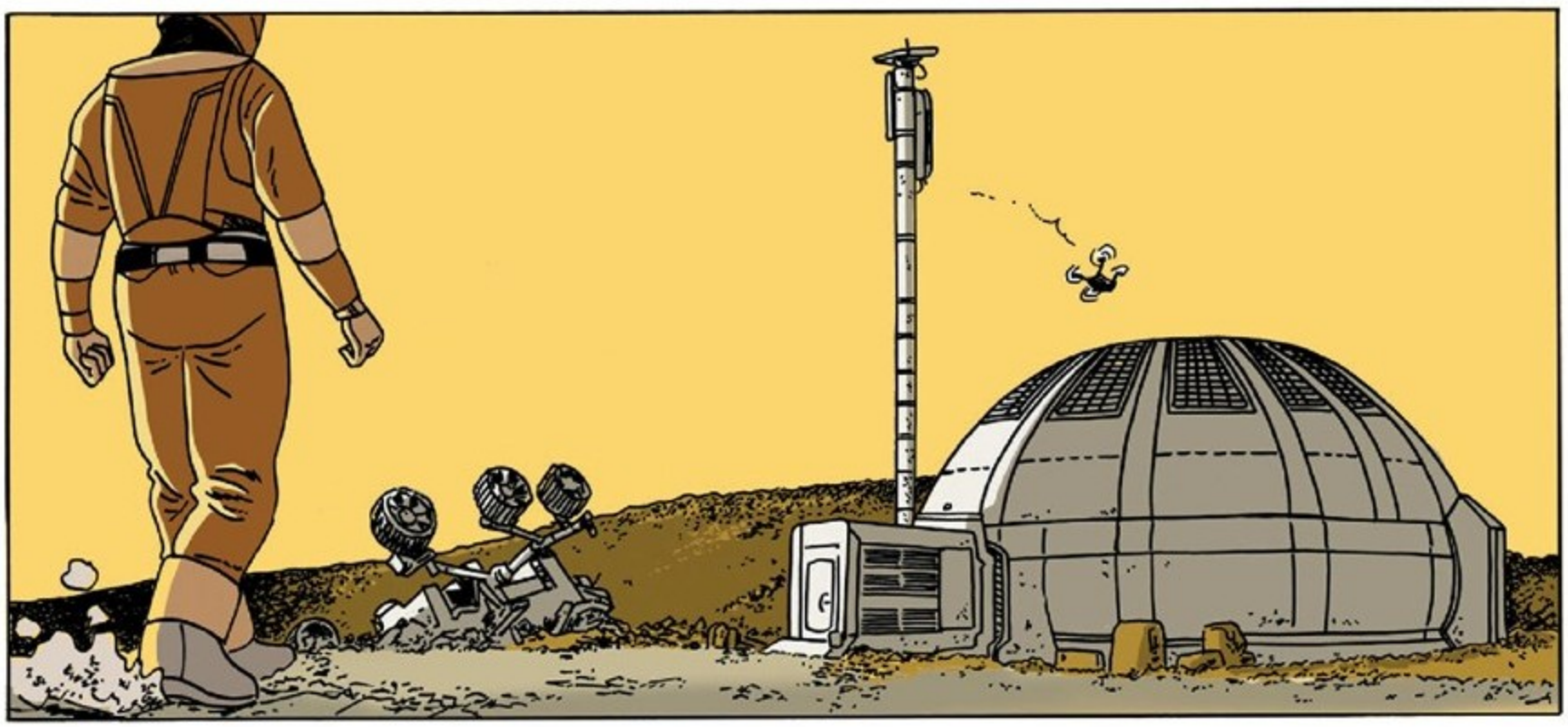


Illustration by Damien Cuvillier

THE SOURCE Story by **Swann Meralli** and Art by **Zac Deloupy**



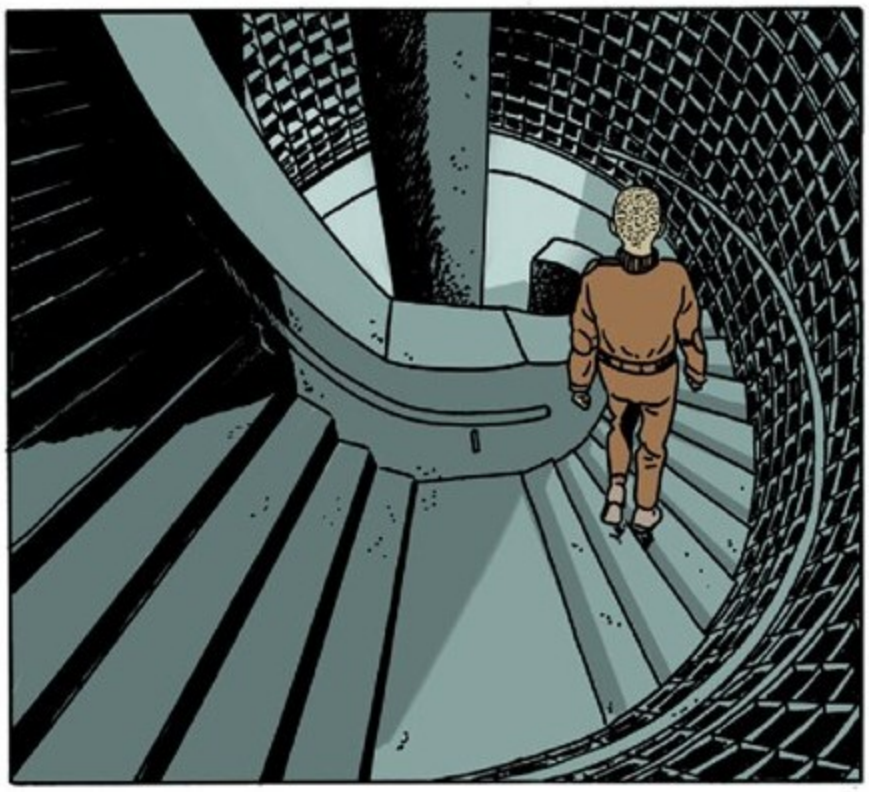


















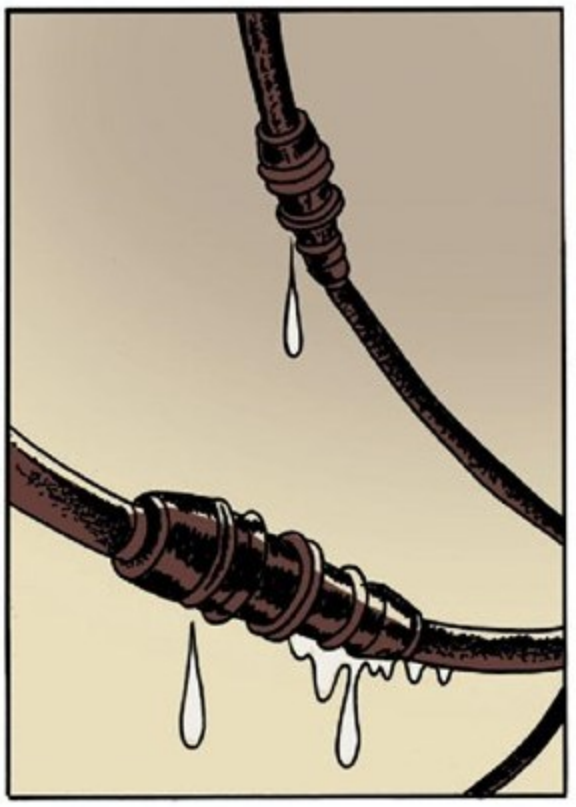





WWWWWWWWWWWWWWW



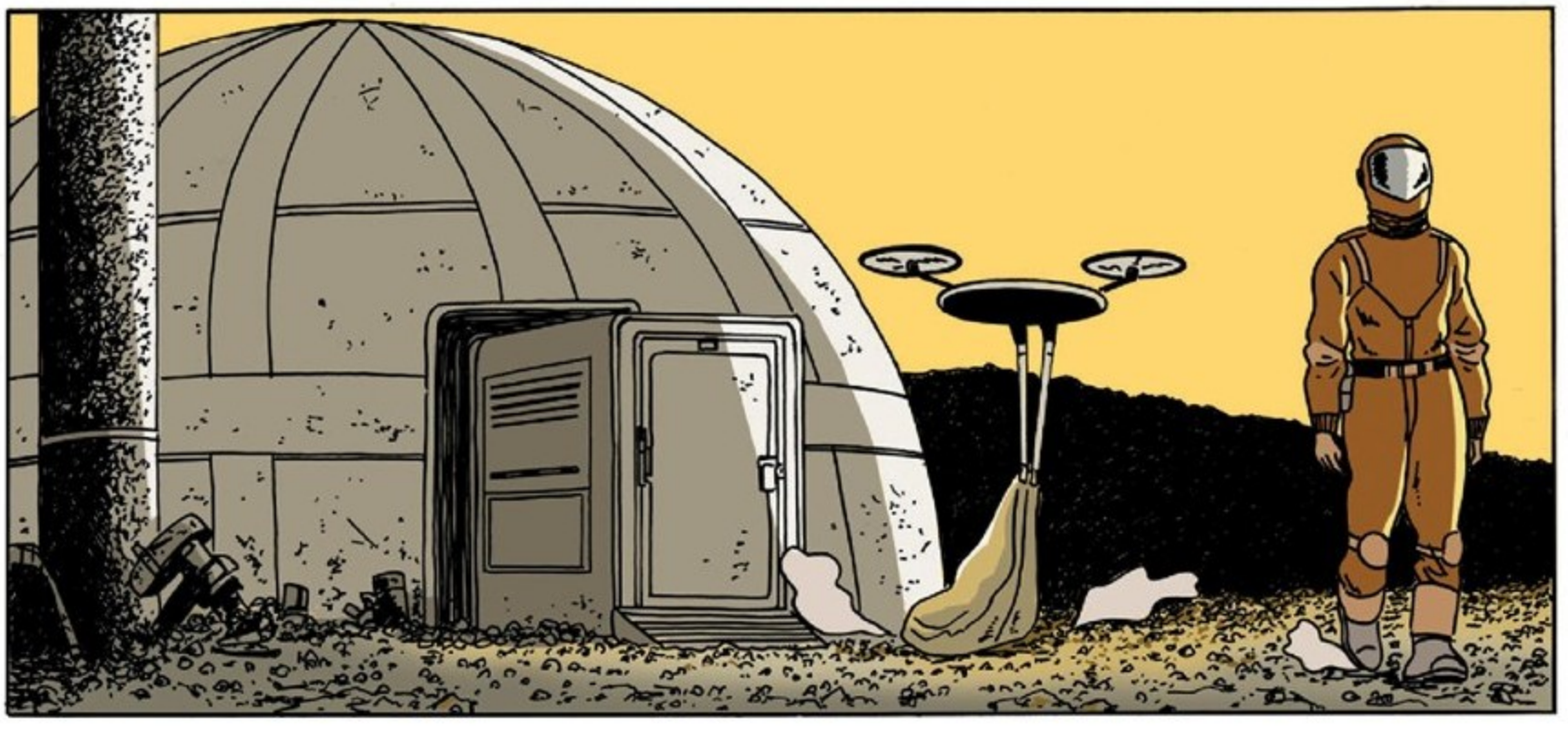


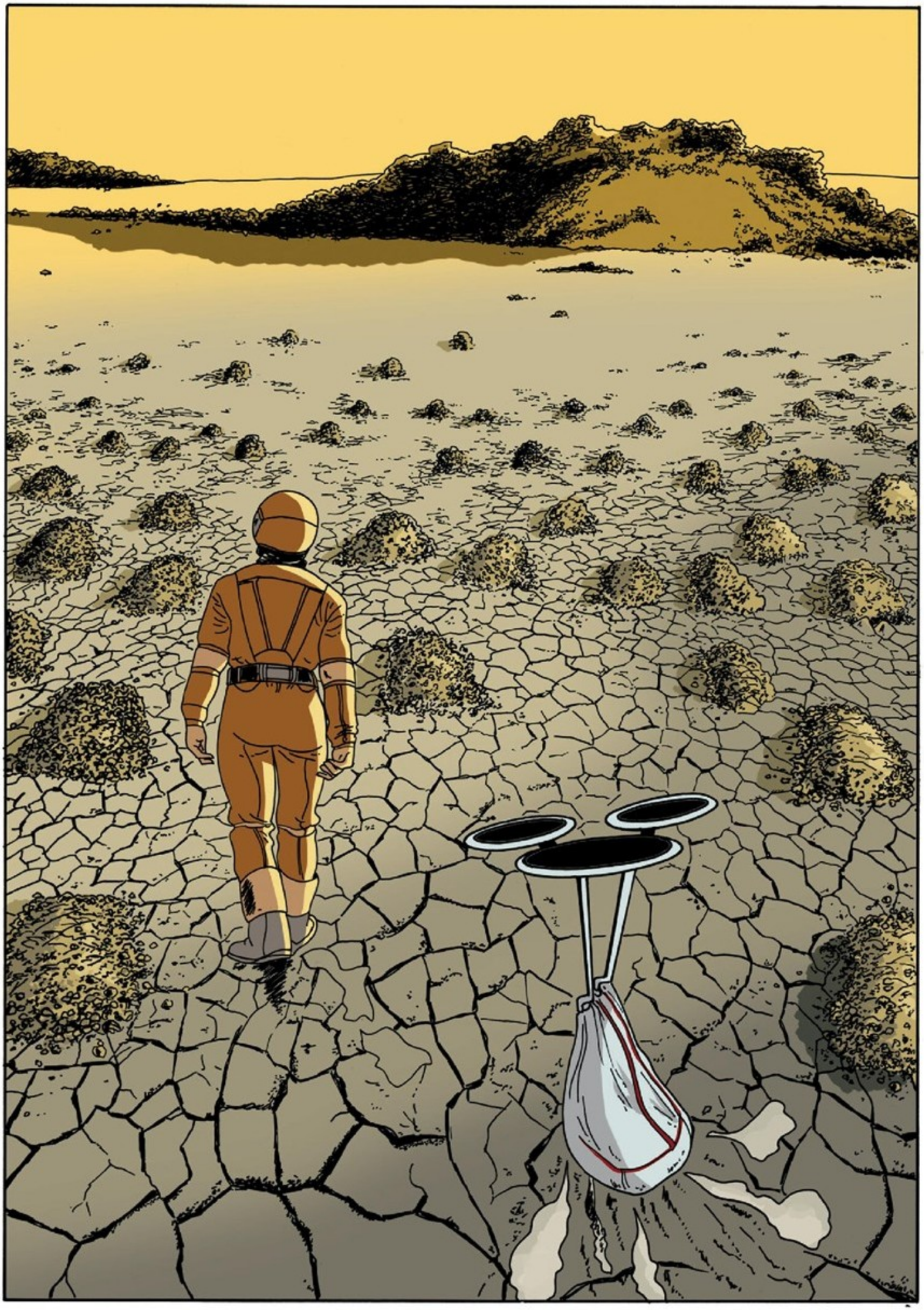












THE OLENE FLOWER by Aurélie Crop





















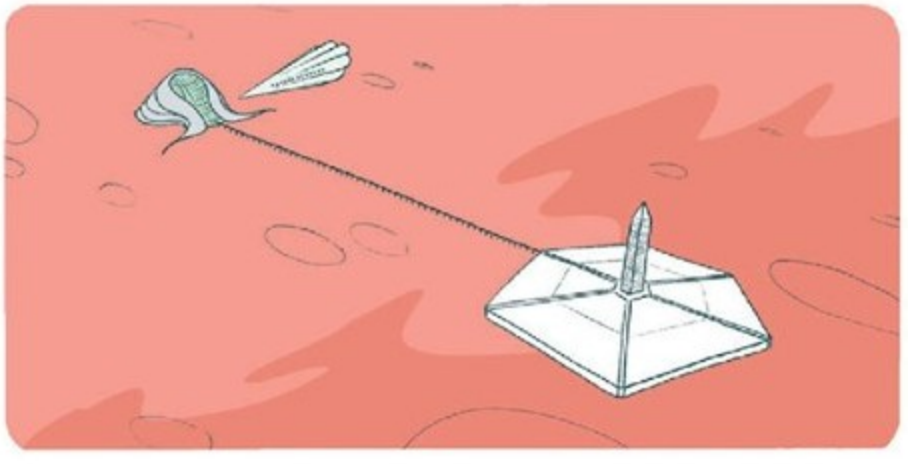












* Medically assisted reproduction.

Can I have dinner with you? I'm Khloé.

Sure. I'm Jade.

So, does this fertility retreat really work? Feels strange, arriving to Mars in March...

It's spring: the ancestral season for babies on Earth, just like before...

I wish I'd lived back then; it seemed so simple to make a child without medical technology...

No way! It's easier to be a woman now than before... They had to be careful all the time. Now we're free!

I'm only 92 but I want children so badly! I've been trying for a long time.

I'm 210. I wasn't in a hurry, but now I'm in between jobs, so why not?

It'll keep me busy for what, 18, 20 years, until they're out on their own? One project among many, then I'll start a new job.

Why come here?

It's become impossible to have a child without MAR, and everyone says that Mars has the best success rate.

And my mother came here before she had me and my twin sister...

Your sister has kids?

She passed away. An accident...

You'll see, this stay will change your mind. Elyna is incredible, magical...

Last time, I left feeling different, fulfilled, powerful!

Everyone should become a "mother," even men, even those who can't have children: to create, to build, to help, to raise...

I think that's what I'm looking for here...

Having a baby?

I'd love to, but I'm still young, I'm 145. I'm an architect, working on an extension to the Olene station, so that it can accommodate more women. The Cradle is huge in comparison! Olene was built later, out of superstition, less optimized...

I don't believe in this magical thinking that says that women who go through Olene will be more fertile. It's just a framework that soothes them, I imagine, before medicine does the job!

But if I can help...

Are you going to live here?

Just through the end of this job. I've worked on the moon, on independent vessels, but later I want to return to Earth to have a child.

Even if it's polluted, it's my home.

Do you want to come to my room after coffee?

I have to prepare my team's work for tomorrow. Another time?

'Night.

I can't wait to hear it again.

Ah, there she is!

Hello everyone, and welcome to Olene. You've come here with the desire to have a child.

There are a thousand and one ways to give birth: taking care of yourself, creating, caring for plants and people, forming a close-knit group of women, listening, taking time...

You're here on "vacation," a suspended moment, an emptiness necessary to feel existence, to feel alive, before filling it with new life.

I'm nearly 300, and my life is coming to an end. I've seen the world change, weapons disappear in favor of medical advances, and that's good.

But don't forget your sacred link with nature, the magical power of women to create life, which existed long before technology and which is still here, within you.

We're on the planet of the god Mars, the god of strength, a fighter capable of protecting humans and their farmsteads from outside powers. You're going to absorb this strength.

Later, in the Cradle, we'll protect your "cultures" medically...

... and the magic of Mars will be with you all the way. Believing in it is half the battle.

What the hell am I doing here...?

Come close to the earthen vats.

You're going to plant these seeds, and see life born by your own hands, by your own care.

Don't you think that after all these years, sex has become boring for everyone? Even if it's still enjoyable, of course...

I'd like to feel more things, new emotions.

A long time ago, I had a child. His mother left with him when he was very little.

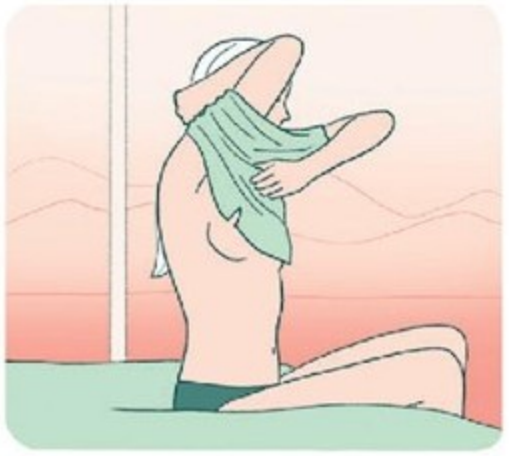
I've never felt anything so strong since then: that link to that small being we created, it was crazy...

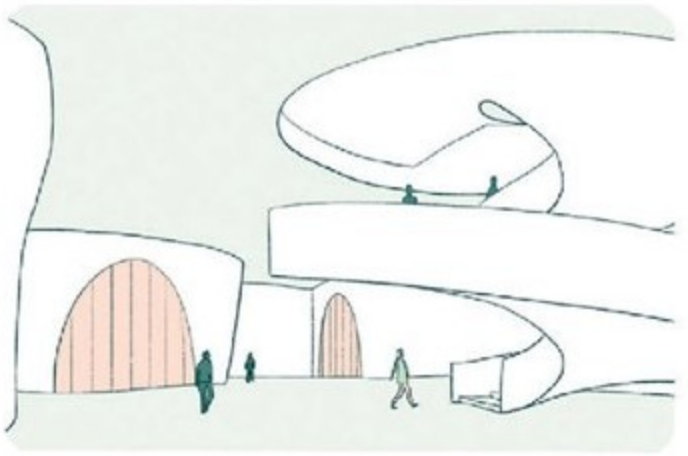
I dream that artificial wombs will finally work, that I'll be able to make a child myself, to find that again...

I don't think I really care about having one... If this MAR thing on the Cradle doesn't work..

...I'll find something else to do for the next two decades.

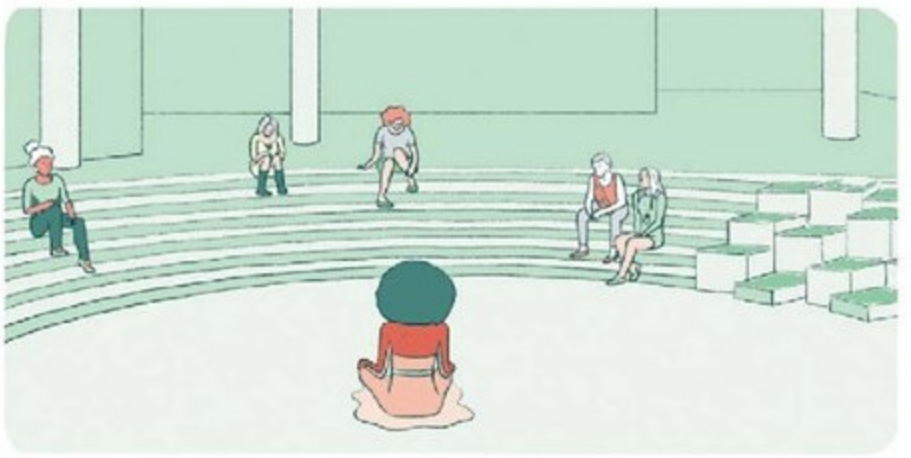













Today, I'm going to tell you about the true birth of the god Mars.


Juno, queen of the gods and sky, wanted to conceive a child without the help of her husband Jupiter.


She asked the goddess Flora for help. She gave her a flower, which grew in the countryside of Olene, in Achaia.


The mere touch of this flower could transform even a barren woman into a mother.


Juno touched the flower and instantly...


...she became the mother of Mars.

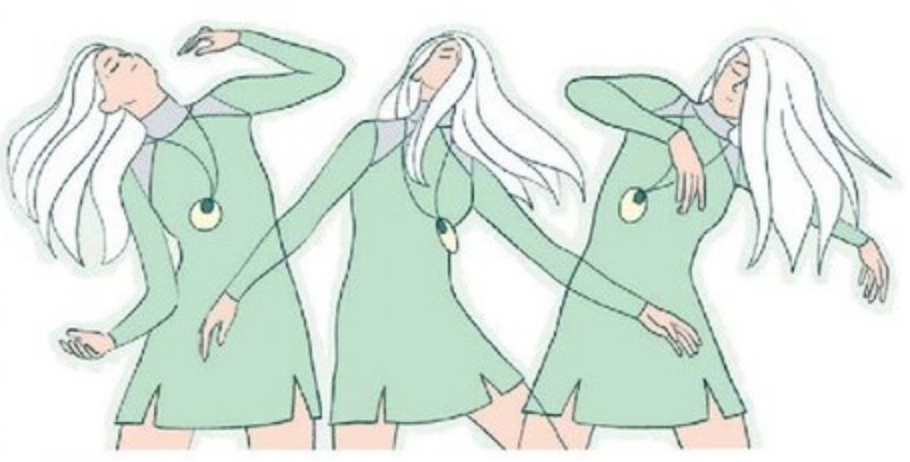

Look, our flowers are starting to bloom...




Let's dance together and celebrate these flowers of life!

























Would you like to see me again?

Six weeks already... It's gone by so fast!

Yes, it has.

Thank you for coming to Olene, Jade.



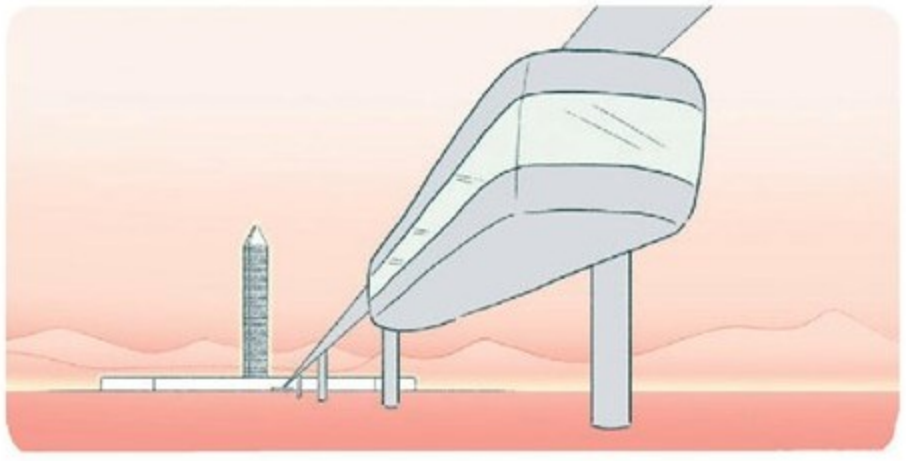






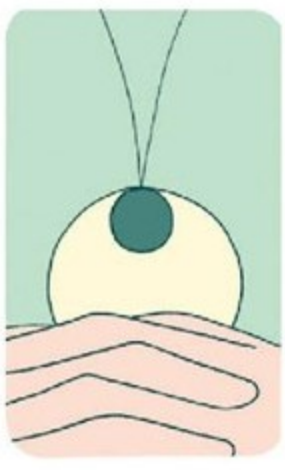

Expected arrival at the Cradle in 30 minutes.


Here you'll find some of the best medical teams in the world, entirely dedicated to reproductive assistance.



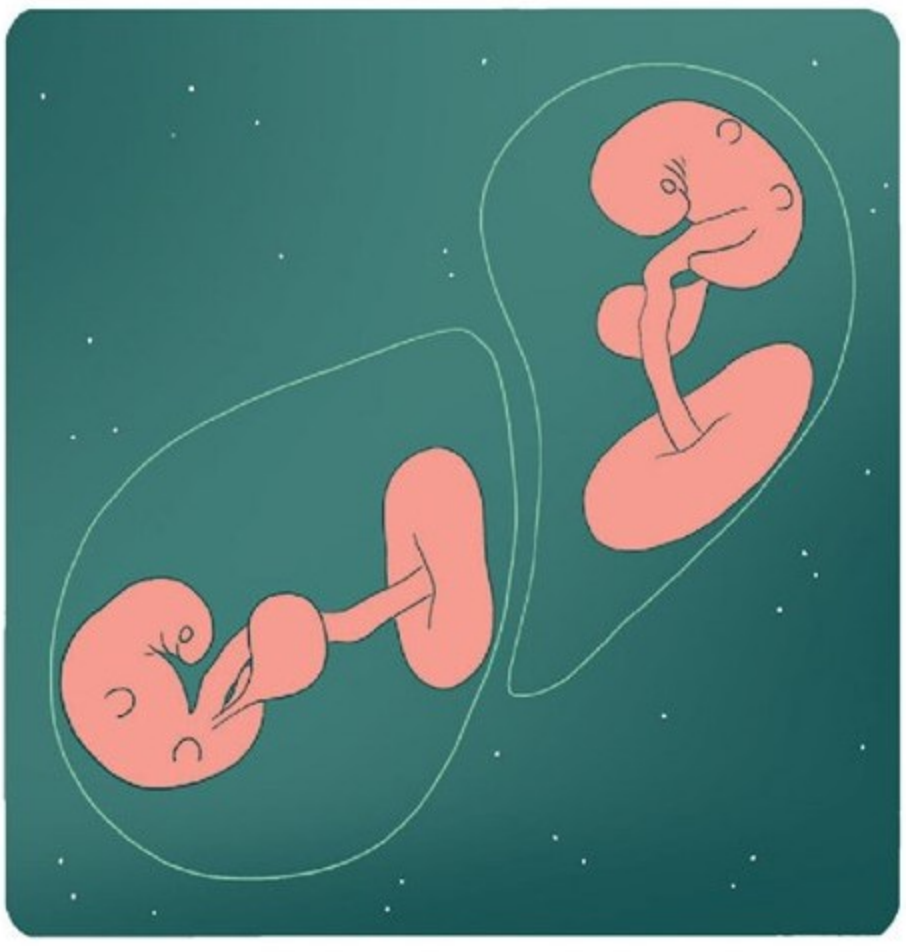












THE OUTCASTS OF SPACE

Story by **Benjamin Fogel** and Art by **Damien Cuvillier**



I HATE SPENDING ALL THIS TIME AWAY. HOPEFULLY THESE RUNS WILL ALLOW LUXOR TO BREATHE CLEAN AIR ONE DAY...

DON'T HOLD YOUR BREATH.

THREE YEARS WE'VE BEEN TAKING P.N.E.I.* TO MARS, RICH JERKS WHO WILL AGE PEACEFULLY ON A PRISTINE PLANET WHILE WE KEEP STRUGGLING ON A DYING EARTH.

* PEOPLE WITH NEGLIGIBLE ENVIRONMENTAL IMPACT

NOT ONLY HAS OUR SITUATION NOT IMPROVED, IT'S GOTTEN WORSE.

I'M SURE HE'LL MAKE IT TO MARS ONE DAY.

LUXOR HAS A RATING OF 3.5 OUT OF 5.

WE'LL KEEP DOING THESE RUNS TO MAKE MONEY SO HE CAN FOCUS ON WORKING THE LAND AND NOT LOSE POINTS FOR STUPID, ENERGY-CONSUMING WORK.

WHAT ABOUT US?

WE HAVE TO FACE THE FACTS.

IT'S OVER.

IT'S A VICIOUS CIRCLE. THE MORE PEOPLE WE TAKE TO MARS, THE MORE ENERGY WE SPEND, THE LOWER OUR SCORE, THE MORE PEOPLE WE HAVE TO TRANSPORT TO MARS TO EARN MONEY, EVEN IF IT MEANS FORGETTING ABOUT LEAVING EARTH.

ONLY ONE DAY TO GO BEFORE WE DROP OFF OUR "PRECIOUS CARGO" ON MARS.

AND HEAD BACK TO EARTH ALONE, STARLITER 3 EMPTY OF ALL ITS BAGGAGE.

THREE MONTHS ALONE IN SPACE WITH THE WOMAN OF YOUR DREAMS, WHAT MORE CAN YOU HOPE FOR?

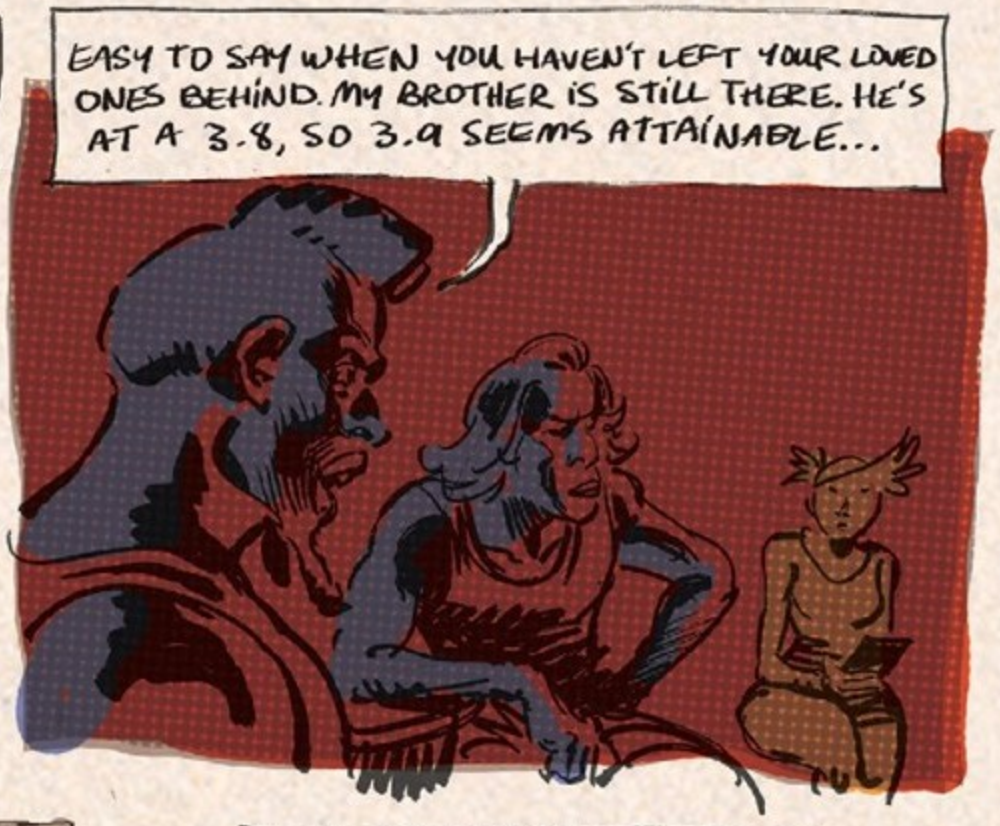
NEWS FLASH

in light of the overpopulation on Mars and the massive influx of migrants, the international consortium has just made another drastic decision:

NEWS FLASH

From now on, you'll need an ecological score of 4 out of 5 to emigrate to Mars.


WHO CARES? IT'S THE LEGISLATION IN FORCE AT THE TIME OF OUR DEPARTURE FROM EARTH THAT COUNTS. FOR US, THE THRESHOLD IS STILL 3.9.


EASY TO SAY WHEN YOU HAVEN'T LEFT YOUR LOVED ONES BEHIND. MY BROTHER IS STILL THERE. HE'S AT A 3.8, SO 3.9 SEEMS ATTAINABLE...


...BUT 4 OUT OF 5? THAT'S CRAZY!
ONCE WE'VE SETTLED, YOU'LL STILL NEED TO REACH A SCORE OF 4 IF YOU WANT TO STAY ON MARS.


WE'LL HAVE TWO YEARS TO CATCH UP. IF YOU CAN'T DO IT, THEN YOU SIMPLY DON'T DESERVE A PLACE ON MARS.



WHAT'S WITH ALL THE SHIPS LEAVING MARS?

I IMAGINE THEY'RE CARRYING FOLKS WHOSE ECOLOGICAL SCORES HAVE GONE DOWN SINCE THEIR ARRIVAL. IF THEY'RE MOVING TO A 4 OUT OF 5 THRESHOLD, THEY'RE DEFINITELY PURGING THOSE WHO HAVE FAILED TO REMAIN P.N.E.I.

STARLITER 3 MAY NOT LEAVE MARS AS EMPTY AS WE THOUGHT... THEY'LL PROBABLY TRY TO SELL US REFUGEES.

IF IT MAKES OUR RETURN TRIP MORE PROFITABLE...

I'LL INITIATE THE LANDING PROCEDURE.

PROCEDURE DENIED

WHAT'S GOING ON?

I JUST DON'T GET IT. WE'RE BEING DENIED ENTRY TO MARS.

ERROR 403

PASSENGERS ON BOARD STARLITER 3 HAVE AN ECOLOGICAL SCORE OF LESS THAN 4 OUT OF 5.
· STARLITER 3 LANDING REFUSED.

WELL, SHIT! HOW ARE WE GOING TO TELL THE PASSENGERS?

I DOUBT WE'LL HAVE TO. THEY'LL HEAR ABOUT IT SOON ENOUGH.

THIS IS NOT POSSIBLE.

WHAT'S GOING ON?

ON THE NETWORK THEY'RE SAYING THE REQUIRED ECO SCORE OF 4 OUT OF 5 IS EFFECTIVE IMMEDIATELY!

WHAT KIND OF BULLSHIT IS THIS? WHATEVER HAPPENS, WE'RE NOT GOING BACK.

WE MAY NOT HAVE A CHOICE.

I SACRIFICED EVERYTHING TO COME TO MARS, EVEN HAD A VASECTOMY TO SHOW I WOULDN'T POLLUTE THE ECOLOGY WITH OFFSPRING.

DEAR STARLITER 3 PASSENGERS, WE HAVE SOME BAD NEWS. DUE TO A CHANGE IN REGULATIONS, WE ARE NOT ALLOWED TO LAND ON MARS. WE'VE BEEN ASKED TO REMAIN IN ORBIT UNTIL A DECISION IS MADE REGARDING SHIPS OF OUR STATUS.

BZZZZZZ

?

WE'VE JUST HEARD YOUR ANNOUNCEMENT ABOUT THE NEED TO STAY IN ORBIT. THE PASSENGERS ARE VERY WORRIED. SOME OF THEM ARE IN DANGER OF LOSING IT. I'D LIKE TO TALK TO YOU ABOUT THIS.

PUIT

YOU CAN'T BEND TO THESE MARS BASTARDS. IT'S A TRAP! THE LONGER WE STAY IN ORBIT, THE MORE ENERGY WE CONSUME, THE LOWER OUR ECOLOGICAL SCORE. TELL 'EM WE NEED TO LAND TO REFUEL, THEN ONCE WE'RE THERE WE CAN PLEAD OUR CASE.

WE ALREADY MADE THAT REQUEST. IT WAS REFUSED.

SO THEN WE FORCE A LANDING.

WE CAN'T DO THAT. MARS' DEFENSE SYSTEM WILL PREVENT US FROM APPROACHING.

WE HAVE NO CHOICE.

IT'S EITHER THAT, OR WE GO BACK TO EARTH AND DIE.

I'M GOING TO HAVE TO ASK YOU TO STEP OUTSIDE, SIR. WE'LL DO OUR BEST TO MANAGE THIS CRISIS. WE'LL KEEP YOU POSTED.

PUT THAT DAMN SHIP DOWN ON MARS OR I'LL BLOW HIS HEAD OFF!

... i ... IDENTIFY THE INTRUDER...



Leon Hill

Born in 2112 in Vincennes, a former gangster and black-market dealer in the 2140s, has since become a radical environmentalist. In the span of a decade, his ecological score has risen from 2.8 to 3.9. Ticket to Mars purchased on the very day the 3.9 mark was passed.

THE INTERNATIONAL CONSORTIUM HAS SHOWN THEY WILL TAKE DRASTIC MEASURES TO ENSURE MANKIND WON'T REPEAT ITS MISTAKES ON MARS.

WE HAVE NO CHOICE BUT TO OBEY.

I'M NOT GOING TO ROT ON EARTH FOR THE SAKE OF THE INTERNATIONAL CONSORTIUM. OUR ANCESTORS SUCKED THE PLANET DRY, LEAVING US ONLY CRUMBS. I REFUSE TO SETTLE FOR THAT.

WHEN MARS WAS TERRAFORMED, I REALLY BELIEVED PLANET B WOULD BE HOME TO ALL HUMANS. YOU DON'T KNOW WHAT I HAD TO ENDURE TO GET MY ECOLOGICAL SCORE PAST 3.9. YOU CAN'T IMAGINE THE RESTITUTION REQUIRED TO ERASE ONE'S PRESENCE FROM AN ECOSYSTEM.

THE REASON PLANET B IS A REALITY TODAY IS PRECISELY BECAUSE IT DIDN'T WELCOME ALL HUMANS.

STOP WHINING. THE RICH—AND CROOKS LIKE YOU—SUCKED UP ENOUGH LOOT TO BE ABLE TO DEVOTE YOUR LIVES TO REDUCING YOUR ENERGY IMPACT. THE REAL LOSERS WORK THEIR ASSES OFF WITH MARS AS JUST A DREAM.

NOW WHO'S WHINING? WHAT'RE YOU GONNA DO ABOUT ALL THIS INJUSTICE? YOU GOOD LITTLE SOLDIERS OF A SYSTEM THAT DESPISES YOU?

LAND US ON MARS AND FIGHT FOR YOUR RIGHTS!



ERROR 504

THE STARLITER 3 HAS BROKEN PROTOCOL BY INITIATING AN UNAUTHORIZED LANDING PROCEDURE. IN ACCORDANCE WITH ARTICLE 18 OF THE PRESERVATION OF SPACE, WE WILL PROCEED WITH THE DESTRUCTION OF THE VESSEL.






Luxor Katansky.
Your parents, Karla and Yonig Katanksy, have broken the rules of the International Consortium, resulting in level 3 space environmental degradation, including 26 non-degradable pieces of debris. In accordance with the law on family co-responsibility, your ecological score is reduced by 1.6 points.
Your new ecological score is 1.9.

EGG by Yang Weilin

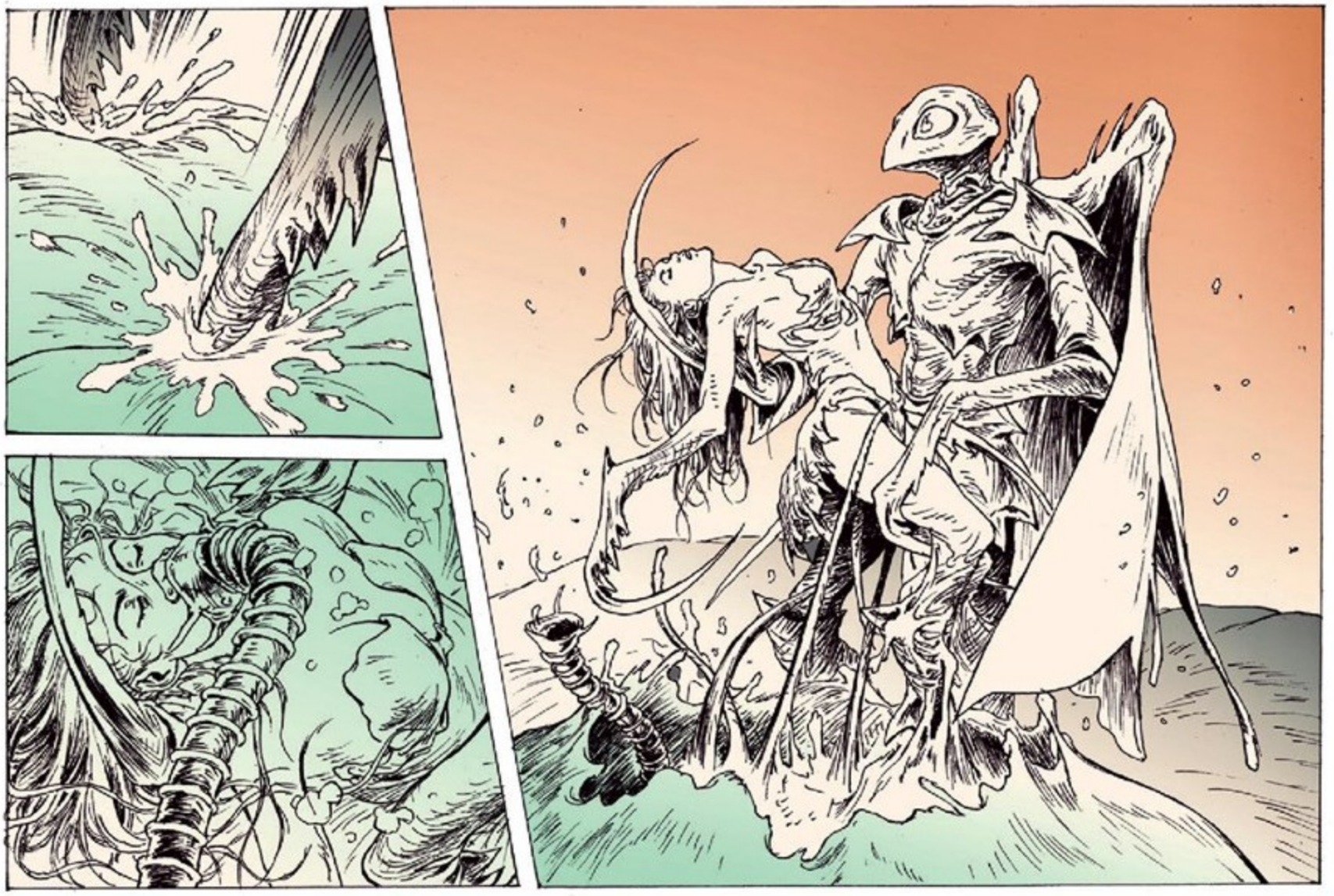


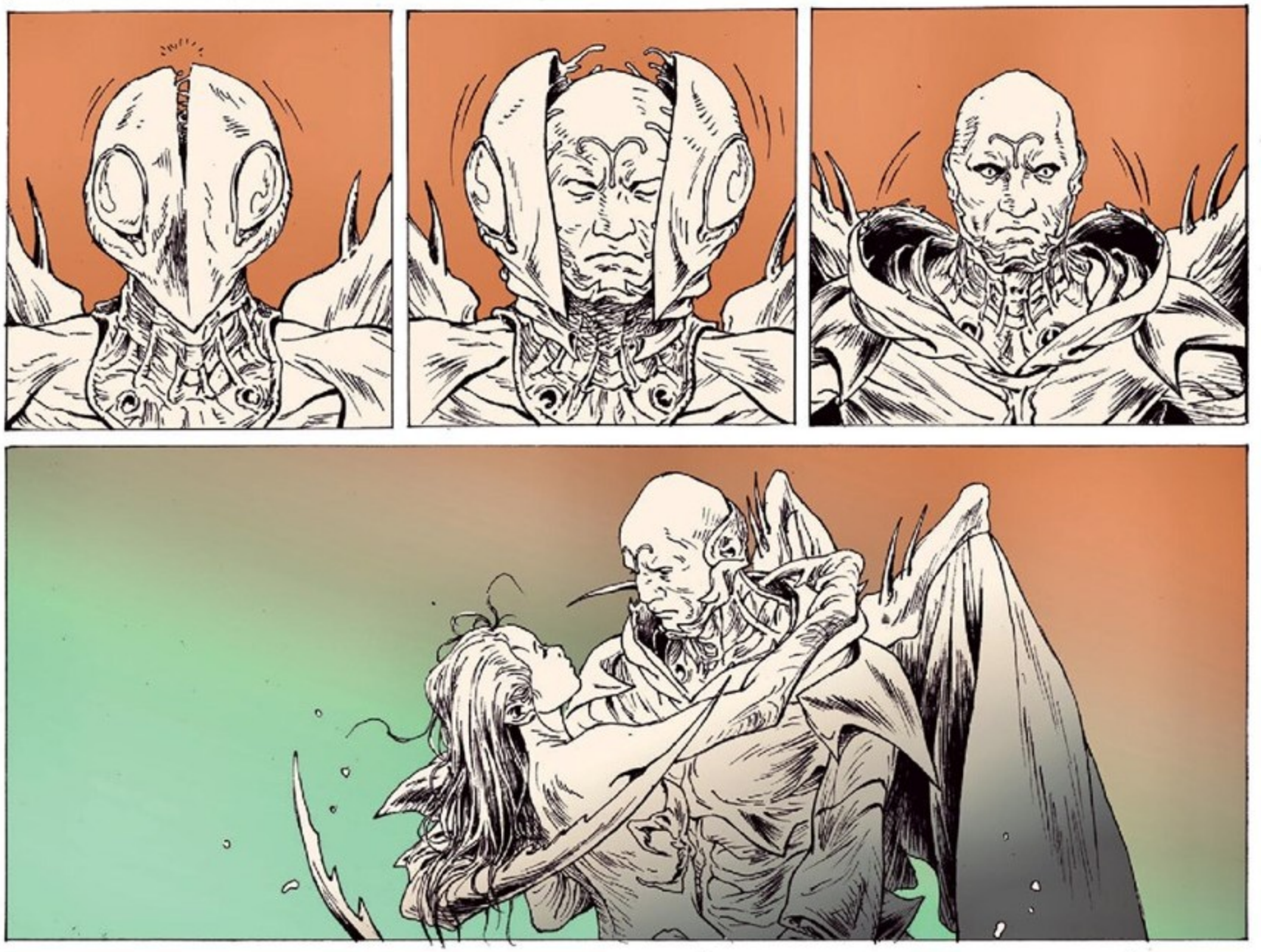














FORGING THE METAL

THE PILLARS OF SOCIETY EXTEND TO THE HEAVENS

We explore space, we colonize space, and then...we have to live there. There is a dream of life amongst the far stars, but then there's the practical reality. How do you set up a system of governance? How do you rebuild a society so far away from the old realities that made the culture you came from? It is undeniable that the environment affects the structures of civilization, so an alien environment would surely affect our concepts of society. Or would it?



Illustration by Enki Bilal

Mark Waid and **Fabien Grolleau's** "Tolliver Jakes: Governor of Mars" [p. 131] introduces us to the new boss, and he is very much the same as the old boss. In a future that feels uncomfortably close to our present, the fading Mars colony elects to have the son of a prominent trillionaire come to run their planet like a business. The similarities to any political dynasties current or recently passed are, we have been assured, purely coincidental (and as someone who has worked with Mark Waid on numerous occasions throughout the years, including under him as publisher at Humanoids, I am trying very hard not to take the bossy, uncaring despot's surname personally). Grolleau's style here, looking at times almost like a political cartoon, manages to capture with straightforward simplicity both the fatuousness and menace of these wannabe dictators and puppet masters. Tragically, given the current political outlook, the most outlandish aspect of this story is that anyone in power takes any meaningful measure to actually stop the slide into pure, idiotic authoritarianism at all.

It is telling that the two tales that close this section on building a society in space are both classic pieces done by masters of the form for the original series that still feel as *au courant* now as they ever did. The more things change, the more they stay the same. **Jean-Claude Mézières,** the brilliant mind behind the classic bande dessinée sci-fi series *Valérian* beautifully illustrates the age-old transition from firebrand revolutionary to bourgeois conservator of the status quo long before the hippie generation even began morphing into the "greed is good" Gordon Gekkos of the '80s. "Space Marauders" [p. 147] opens with a choice between two of society's great bulwarks against revolutionary change: prison or the military. Mézières makes the savvy choice to let the true revolutionaries go off to jail and follows the sellout protagonist who joins forces with his previous enemy. For the main character of "Space Marauders" one job is as good as the next, as long as the paychecks come through and the living is comfortable, even if that job means traveling the galaxy putting your foot on the neck of anyone pushing back. OK, Kaboomer. Did he change, or did he ever actually believe in anything at all? It is men like Mézières' Marauder that both build societies and then stop them from evolving, be it on Earth or among the stars.

One of the unassailable classics of the original run of *Metal Hurlant*, *Exterminator 17* [p. 155], created by **Jean-Pierre Dionnet** and **Enki Bilal,** printed here with the out-of-print original colors done by Enki's wife at the time, Patricia Bilal. The story imagines a galaxy where order is enforced by robots known as "Exterminators." Written by Dionnet, one of Humanoids' founding fathers and raconteur extraordinaire, the story follows the tried and true setup of having a person of high status suddenly become low status and see what life is like on the other side. In this case, that person is the Master of Androids who, through the wild machinations of comics science magic, finds his consciousness inside one of his Exterminator androids. This leads to an existential crisis and a manhunt—or, perhaps, androidhunt—across space. While the action is very cosmic and philosophical, there is a deep, human underpinning to the story, almost certainly due to Dionnet writing the story as a secret tribute to his father, a career soldier who never shared stories of his experiences in the field with his curious son. You can see the almost childlike yearning to understand what is actually happening out in the bigger, broader, scarier world than what you've witnessed in the comfort of your sheltered world. There's something undeniable in the story that instantly gripped readers of *Metal Hurlant* and editors of *Heavy Metal,* who licensed it for their magazine. Sci-fi legends such as Ridley Scott and Katsuhiro Ōtomo have cited the story as an influence, Ōtomo going so far as to say it was a direct influence on his classic manga *Akira.* According to Dionnet, Michael Mann was even interested in turning it into a film. The power and beauty of the incredible art by legendary *Metal Hurlant* artist Enki Bilal also certainly played a major role in their infatuation, but we'll get into the extraordinary Enki Bilal more next issue, where we will reprint the second half of the story.

—Jake Thomas

TOLLIVER JAKES: GOVERNOR OF MARS

Story by **Mark Waid** and Art by **Fabien Grolleau**





















EARTH, LATER THAT SAME DAY.

OFFICE OF THE WORLD PRESIDENT.

HOW ABOUT CAPTAIN RENTZ MERZL?

WE NEED HIM TO RUN VENUS.

VIZIR WEDGUR WICHE?

FAR MORE USEFUL MANAGING THE COLONY ON TITAN. YOU'RE SHOOTING TOO HIGH.

FORGIVE ME, MR. PRESIDENT, BUT WE FEEL THAT MARS IS SORELY NEGLECTED BY THE SOLAR UNION.

WE ARE, AFTER ALL, COLONY ALPHA. AND AFTER ALL THESE YEARS...

WE FEAR FOR OUR FUTURE IF WE ARE NOT PROVIDED A GOVERNOR WHO CAN, IN THE FACE OF CHAOS, WELL...

...GOVERNANCE HERE HAS BECOME QUITE THE COMPLEX SYSTEM. LEADERSHIP, HOWEVER, HAS BEEN LACKING.

MAKE FUCKING DECISIONS RATHER THAN BE OVERWHELMED.

IN OTHER WORDS, A PUPPET YOU CAN ACTUALLY USE.

SIR, WE ARE BUT LOWLY CHIEFS OF STAFF.

WE HAVE NO AMBITION BEYOND--

DON'T BULLSHIT A BULLSHITTER, SON. YOU'LL GET WHO YOU GET.

UNLESS YOU PROVIDE ME A WORKABLE CANDIDATE.

SIR...

ARNOLD JAKES? LEADER OF THE NOSTALGIA PARTY? POTENTATE? EARTH'S PREMIER TRILLIONAIRE?

DOESN'T HE HAVE A SON...?

WHAT IS THE HOLD UP?

I WANT MY HUSBAND TO HAVE HIS FUNERAL, AND NOBODY'S DOING ANYTHING!

I'M SO SORRY, MA'AM...

...BUT WE HAVE ORDERS FROM THE INCOMING GOVERNOR. HE WANTS US TO WAIT UNTIL HE ARRIVES ON MARS.

SO HE CAN PAY HIS RESPECTS IN PERSON.

OH... THAT'S NICE. HE SOUNDS WONDERFUL.

INDEED, MA'AM. HE'S QUITE SOMETHING.

"HIS NAME IS TOLLIVER JAKES."

WELCOME, GOVERNOR. I'M CHIEF OF STAFF DODGE, AND THIS IS--

WHEN'S THE FUNERAL?

WHENEVER YOU-- WHEN YOU'RE READY, SIR.

LET'S GET IT OVER WITH.

...AND, LIKE MY FATHER, I'M A BUSINESS GUY.

I'M A LEADER.

I'M A BETTER TOMORROW.

WHAT I DO IS, I LOOK AT THINGS RATIONALLY WITH COMMON SENSE...

...AND PUSH THINGS FORWARD IN A WAY THAT MAKES SENSE.

YOU SOLVE PROBLEMS WITH SOLUTIONS. I'M A BIG BELIEVER IN--

WHAT ABOUT MY HUSBAND?

WHAT?

ARE YOU GOING TO MENTION MY HUSBAND IN HIS OWN EULOGY?

WHO IS THIS?

THE LATE GOVERNOR LONG'S WIDOW, SIR.

I'M SURE THIS FEELS LIKE A TRAGIC LOSS.

I THINK I DID WELL.

SOMETIMES, I AMAZE EVEN MYSELF.

DON'T TAKE ANYTHING FOR GRANTED. I WANT TO INSPECT IT ALL.

BUT SO MUCH OF OUR INFRASTRUCTURE IS NEW AND RUNNING SMOOTHLY, GOVERNOR.

IT WOULD BE A WASTE OF YOUR--

EVERY-THING.

"...AND OUR OLD WATER TREATMENT METHODS INCLUDED A NECESSARY ELEMENT THAT TENDED TO MAKE PEOPLE SICK...

"...UNTIL GOVERNOR LONG LAUNCHED A SUCCESSFUL DRIVE TO DEVELOP AN ANTIDOTE."

AND WHAT'S THE BUDGETARY DENT FROM THIS SO-CALLED "ANTIDOTE"?

IT'S NOT CHEAP, SIR. BUT WE NEED IT.

YOU MANAGED TO SURVIVE BEFORE, CORRECT?

BOM BOM

SIR, WATER PURIFICATION WAS THE SIGNATURE ACCOMPLISHMENT OF GOV. LONG'S ADMINISTRATION. SIR.

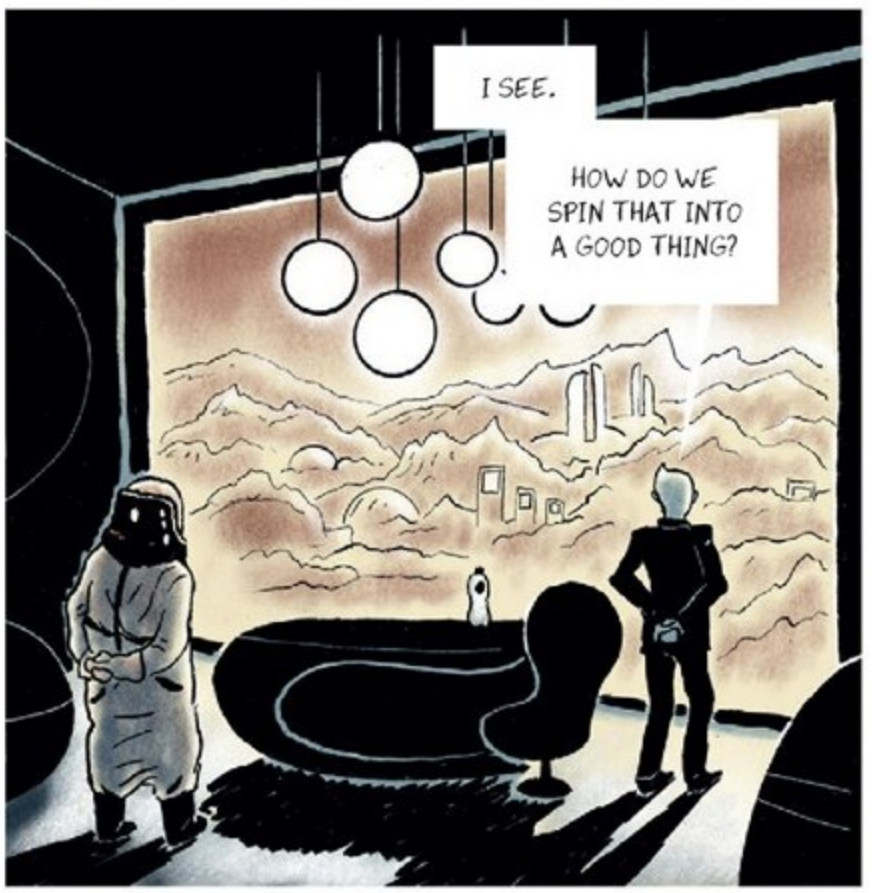
AND HERE I AM, HAVING TO CLEAN UP HIS MESS.

I HAVE THE NUMBERS ON WATER EXPENDITURES SINCE YOU BANNED THE ANTIDOTE, GOVERNOR.

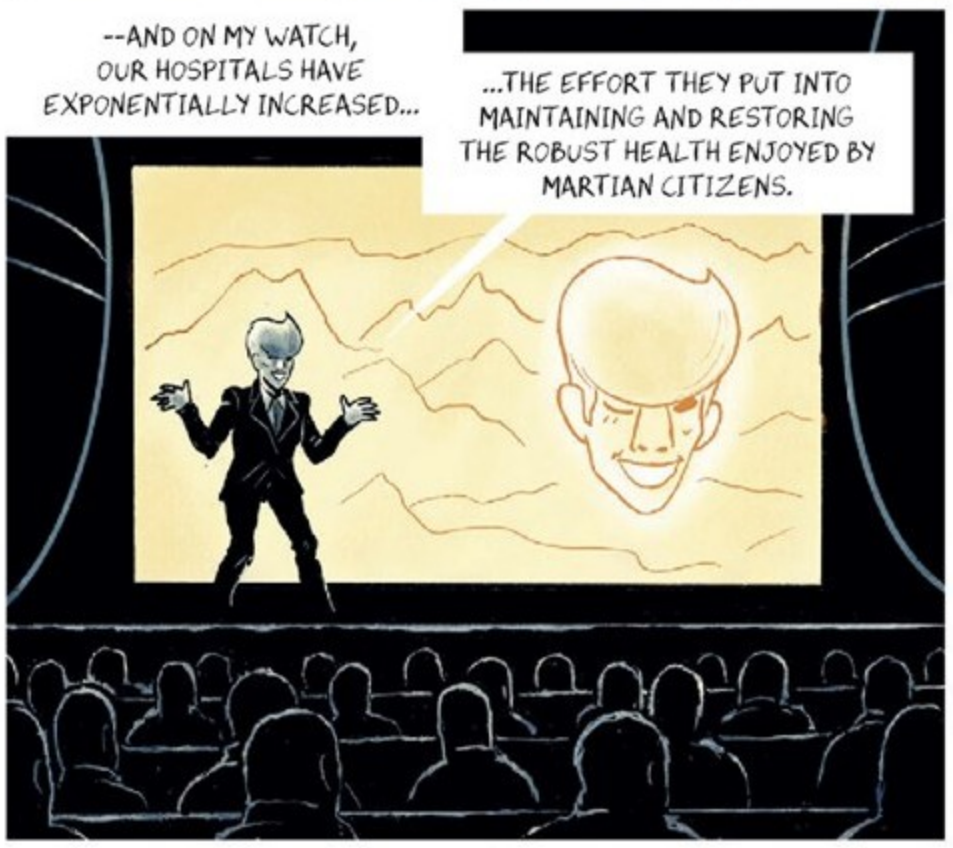








--AND ON MY WATCH, OUR HOSPITALS HAVE EXPONENTIALLY INCREASED...





JUST LOOKING AROUND THIS ROOM, I DON'T SEE A LOT OF "ROBUST HEALTH" IN THE WAKE OF THE NEW WATER TREATMENT FORMULA.



YOU KNOW REPORTERS. THEY SHOULD LAY OFF THE BOOZE.







DODGE, THESE COMMODITY AVERAGES ARE TERRIBLE.

SIR, THE WORKERS INVOLVED ARE SLOWING THEIR EFFORTS AS PART OF AN ILL-ADVISED CAMPAIGN FOR A FOUR-DAY WORK WEEK.

GOVERNOR LONG RESISTED THAT STEADFASTLY.

HE WAS SOFT. HE SHOULD HAVE UPPED IT TO SIX DAYS FROM THE GET-GO.

AND WHAT'S THIS ABOUT "GENTRIFICATION WARS"?

"OH, THAT'S ALL THE WAY OVER IN DISTRICT 83.

THIS GROUP, 'GEN ALPHA' --YOUNG AND AFFLUENT-- HAS BEEN TRYING TO EXPAND THEIR NEIGHBORHOOD BY FORCE.

"THE RESISTANCE TO THEM HAS TAKEN THE FORM OF THE IMPECUNIOUS GRASSROOTS 'BETA FORCE.'

THE SKIRMISHES HAVE BEEN GOING ON FOR YEARS. WATERBORNE ILLNESS HAS EXACERBATED THEM."

WELL, WE HAVE WEAPONS, DON'T WE? ARM THE ALPHAS.

BUT WE'RE IN SENSITIVE TALKS RIGHT NOW WITH THE BETAS--

"YOU SAID THEY WERE POOR. WHAT CAN THEY DO FOR US?

"'NO ONE'S BEEN ABLE TO SOLVE THIS.' GOOD GRIEF!"

ARM. THE. ALPHAS.

AND TELL THE CHEF THAT THE STEAK WAS GARNISHED WITH AN INSUFFICIENT AMOUNT OF GOLD FOIL.

CHECK HIM OUT.

WHAT?

THE JANITOR.

WEAK CHIN. DROOPY EYELIDS. DUMBER THAN HE LOOKS. WHO DO YOU SEE?

IT'S AMAZING. THEY COULD BE BROTHERS.

WHAT IF IT'S HIM AND HE'S SPYING ON US?

TOLLIVER JAKES TOUCHING A MOP? HA!

HIS LORDSHIP AWAITS IN HIS VELVET THRONE.

WHAT ARE THESE, DODGE?

THIRD QUARTER POLICY PROPOSALS

THIRD QUARTER POLICY PROPOSALS, IF I READ THAT RIGHT, SIR.

WHAT'S ALL THIS ABOUT INFRASTRUCTURE REPAIRS?

THE BETAS, SIR.

ROUTED FROM THEIR HOME BECAUSE OF THE ALPHAS BECAUSE OF THE ILLNESS BECAUSE OF THE WATER, THEY'VE TAKEN TO ACTS OF SABOTAGE.

WE NEED TO FIX--

GOVERNMENT SOLUTIONS ARE NOT GOING TO WORK!

BUT WE'RE A GOVERNMENT, SIR.

THAT'S THE PROBLEM WITH ALL OF YOU. WASTING YOUR LIVES ON NICETIES AND IGNORING EXPEDIENT ANSWERS.

I WANT A LIST OF THE TOP ENTREPRENEURS ON MARS.

WE ARE GOING TO INFUSE! FRESH! THINKING!

GOVERNOR!

NOT NOW, DODGE.

YOU KNOW I'M ABOUT TO CONVENE MY ENTREPRENEUR SUMMIT.

THIS IS A MAJOR CRISIS, SIR!

THE BETAS HAVE DESTROYED THE CENTRAL SUPPORT BEAMS OF OUR MOST HEAVILY TRAFFICKED BRIDGE!

I'M AWARE. I'VE TAKEN CARE OF IT. A NEW SUPPORT STRUCTURE HAS ALREADY BEEN BUILT.

"SEE FOR YOURSELVES."

"OH, DEAR GOD."

AND IT'S ALREADY CRACKING. HE USED THE CHEAPEST STEEL.

THIS IS NOT WHAT WE PLANNED. THIS CAN'T GO ON.

IT HAS TO. THERE'S NO GETTING RID OF HIM. HIS FATHER RUNS PRACTICALLY ALL OF EARTH.

TAKE A LOOK.

A SPLASH OF HAIR DYE AND A LITTLE MORE CHEEKBONE...

YOU CAN'T MEAN--

...AND YOU AND I ARE BACK IN POWER.

"I'M GOING TO UNWRAP THE BANDAGES VERY GRADUALLY SO THAT YOUR EYES CAN BECOME ACCUSTOMED TO THE LIGHT."

I UNDERSTAND, DOCTOR.

INCREDIBLE!

BEAUTIFUL JOB, DOCTOR.

AND I KNOW WE CAN TRUST YOU TO KEEP THIS--

DODGE!

THERE'S NOT A PERSON IN THE MEDICAL FIELD...

...WHO CAN STAND TO WORK UNDER JAKES A SECOND LONGER.

I WON'T BETRAY YOU.

WE CAN PASS JAKES OFF AS THE JANITOR, DISPOSE OF THE BODY.

"GET HIM IN THE NECK AND BRING HIM HERE."

"GOVERNOR," ARE YOU GETTING THOSE POLICY POSITIONS MEMORIZED?

YEAH, MOSTLY, BUT I HAVE A PROBLEM WITH SOME OF THESE. A LOT OF THESE.

A SIX-DAY WORK WEEK? THAT'S JUST MEAN.

"GOVERNOR," ISSUES CONSIDERED OUTSIDE THEIR PROPER CONTEXT CAN PROVOKE STRONG EMOTIONAL REACTIONS.

THAT'S INEVITABLE.

BUT EACH ISSUE IS LINKED TO OTHER ISSUES. AND THOSE ISSUES CONNECT IN TURN TO EVEN MORE.

IT GETS VERY COMPLEX.

NOT REALLY. THAT'S JUST DOUBLETALK.

IT GETS VERY COMPLEX.

WHAT, SO I'M NOT SMART ENOUGH?

I'M SUPPOSED TO GO OUT THERE AND GET THE CROWDS TO BUY INTO THINGS I'M "TOO STUPID TO UNDERSTAND"?

JUST LEARN YOUR LINES...

...JANITOR.

MARS

LADIES AND GENTLEMEN, THE GOVERNOR OF MARS...

...TOLLIVER JAKES!

NO APPLAUSE? ALL RIGHT. FINE. IF THAT'S HOW YOU WANT TO BE.

WE HAVE TO TALK ABOUT SOME OF THESE RIDICULOUS DEMANDS OF YOURS, LIKE A FOUR-DAY WORK WEEK.

BOOOOO!

MARS

SHUT UP. I'M TELLING YOU NOW, I WON'T GIVE YOU THAT.

YOU KEEP ASKING AND HARPING FOR FOUR...

SO IN LIGHT OF THAT, WHAT WE'RE GOING TO IMPLEMENT IS...

...THE THREE-AND-A-HALF DAY WORK WEEK!

CLEAN WATER!

MARS

PEACE IN DISTRICT 83!

YEAH!!

WAIT... I HAVE A LIST...

YOU LITTLE PISSANT! WHAT DO YOU THINK YOU'RE--

YOU'RE AS DUMB AS JAKES WAS.

MAKING EVERYTHING UP AS YOU GO. YOU CAN'T EVEN THINK ONE LOUSY MOVE AHEAD.

YOU MAKE THINGS COMPLEX ON PURPOSE AS A COVER TO MANIPULATE POLICY.

WHAT MADE YOU BELIEVE I'D TAKE ORDERS FROM YOU?

BECAUSE YOU HAVE NO IDEA WHAT YOU'RE DOING!

I THOUGHT YOU WERE AT LEAST SMART ENOUGH TO KNOW THAT!

SO YOU'RE GOING TO KILL ME, TOO?

OF COURSE, THERE IS THE PROBLEM OF WHAT TO TELL THE ELDER JAKES...

NO. I'VE BEEN WATCHING YOU TWO CLOWNS FOR A WHILE.

I WISH I LOVED ANYTHING AS MUCH AS YOU LOVE TO CREATE RED TAPE.

ONCE THAT'S CUT AWAY, I'M CONFIDENT I CAN CLEAN UP AFTER YOU AND DO SOME ACTUAL GOOD HERE.

YOU STILL NEED CHIEFS OF STAFF, YOU ARROGANT PRICK!

EARTH WATER

HOW DO YOU THINK YOU'RE GOING TO MANAGE WITHOUT US?

I'LL THINK OF SOMETHING.

FROM MISSILE TO MASCOT

HOW THE V-2 TRANSFORMED FROM NAZI ROCKET TO EMBLEM OF AMERICA'S SPACE FUTURE

By Dr. Lois Rosson

It is unsurprising that the first man-made object to reach outer space was not a symbol of hope or prosperity, but a terror weapon, forged during one of the bloodiest chapters of human history. The real twist is that this terror weapon remains one of the most iconic symbols of the early Space Age, stripped of its violent beginnings and displayed in some of the most inoffensive venues accessible to modern consumers. In the roughly ten-year period after the Second World



German technicians stack the various stages of the V-2 rocket at Peenemünde. The team of German engineers and scientists who developed the V-2 came to the United States at the end of World War II and worked for the U. S. Army at Fort Bliss, Texas, and Redstone Arsenal in Huntsville, Alabama.



"The London Blitz." V-2 rocket bomb incident at Chinatown, Limehouse, East London, March 1945. Though it could be launched from great distances, the V-2 was not an especially accurate weapon.

War, the Nazi Vergeltungswaffe 2—German for "vengeance weapon," but known simply as the V-2 in the United States—became the most recognized shape in American Space Age visual culture. What was once recognized as a missile, designed to destroy allies, was now a method of *transportation* that would land us innocently on the surfaces of neighboring planets. How did a nation so inundated with anti-German propaganda during the war come to exhibit Nazi technology as the pre-eminent symbol of its nascent space future? The answer gets more bizarre the more you learn—but it also illustrates, literally, how military technology has propelled the history of space exploration.

This story begins with savage physical violence. In 1944, the Germans deployed the V-2 as a late-game weapon to terrorize European civilians in Allied cities. The weapon represented an incredible technological feat: for most of the war, bombs were delivered by heavy piloted aircraft that needed to traverse long fuel-consuming distances into enemy territory. By contrast, the V-2 could be launched from the ground, up to 200 miles away. This new technology also had the added bonus of being psychologically traumatizing: unlike the loud thrum of bomb-dropping airplanes, the V-2 travelled faster than the speed of sound, making its trajectory silent prior to explosion. The most horrifying aspect of the V-2, though, would not be revealed until after the conclusion of the war. While an estimated 5,000 people were killed in V-2 attacks, an estimated 10,000 more died in the concentration camps dedicated to the weapon's production.

In the final days of the conflict's European theater, it was clear to both American and Soviet forces that possession of the V-2's capabilities were some of the most exquisite spoils of war Germany had to offer. This kicked off a race to poach German rocket expertise; as advancing forces encountered enemy personnel, they also evaluated their recruitment value. By November of 1945, this cohered into a secret program eventually called Project Paperclip, named after the tiny fasteners officers used to mark the files of candidates whose immigration to the United States they intended to expedite.

This was how Wernher von Braun, former Nazi SS officer and chief architect of the V-2 rocket, ended up at the Redstone Arsenal in Huntsville, Alabama. As a freshly minted American transplant, von Braun's *new* role was to use his expertise in rocketry to build ballistic missiles for the U.S. Army, though his utilization of concentration camp labor in the production of V-2 rockets was kept secret. By the 1950s, improving missile technology had created a new Cold War front: rockets with enough lift capability to put satellites into space would also be powerful enough to deliver nuclear warheads. Satellites, as an added bonus, could be used to surveil geopolitical rivals from orbit.

The escalating Space Race between the Soviet Union and United States whipped popular fascination with spaceflight into a frenzy. For von Braun, the glut of space-related science fiction churned out in film and magazines—*Destination Moon, Conquest of Space, War of the Worlds, Forbidden Planet*—represented an opportunity: if the government of this new country could be convinced that rockets could carry men into space just as easily as weapons or satellites, than maybe it could be persuaded to pursue a program for human spaceflight and exploration. At the same time von Braun was becoming an indispensable driver of the Army's rocket arsenal, he began a public campaign for a manned spaceflight program. In 1952, von Braun and several likeminded collaborators published a lavishly illustrated article in *Collier's Magazine* subtly titled, MAN WILL CONQUER SPACE SOON.

The article was soon spotted by Walt Disney, who was sourcing material for a television program promoting the opening of his eponymous amusement park, a cathedral of consumer culture to be erected in Southern California by 1955. The *Collier's* article stood out because it featured a real rocket scientist, claiming with supporting materials that human spaceflight was not only possible, but likely to happen soon. This was a boon to Disney's larger project: alongside Fantasyland, Frontierland, and Adventureland, the entertainment magnate planned to feature *Tomorrow*land, an area of the park that would use rockets and



Walt Disney and Wernher von Braun standing with rocket models used for the 1955 television program "Man in Space."

space travel as visual shorthand for the future. What better way to prepare guests for the experience than to couch it in real science?

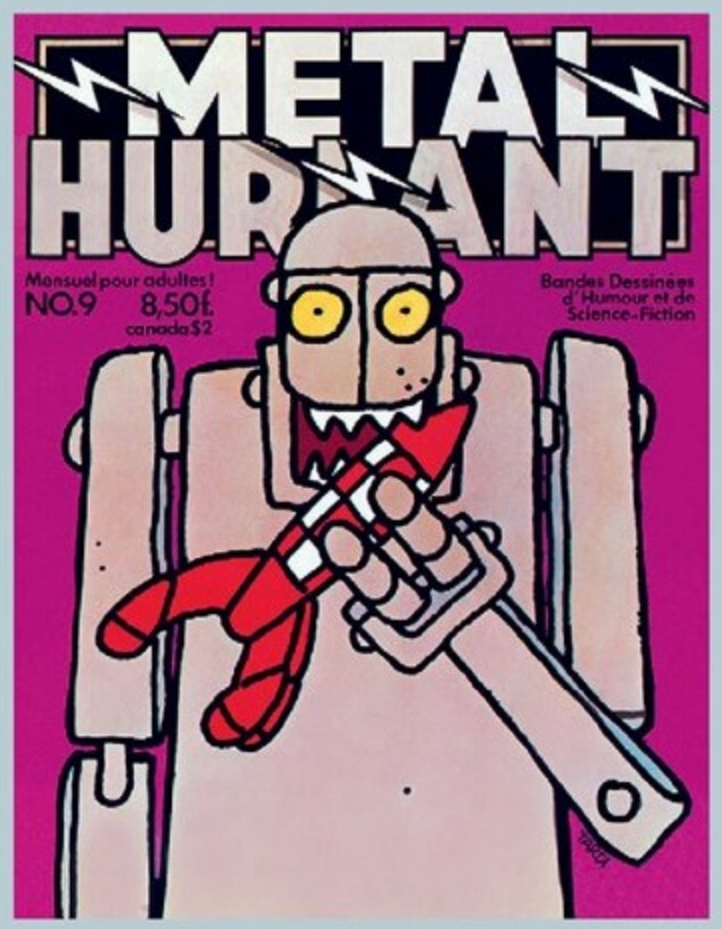


Toy Story-themed restaurant, Alien Pizza Planet, in the Tomorrowland section of Disneyland in Anaheim, California. Photo by Jeremy Thompson (2021).

The interest proved mutually beneficial—while Disney was eager to incorporate Wernher von Braun's expertise into the design of his park, von Braun was eager to use the venue to foment public support for space activities. In 1955, the former SS officer was featured as scientific consultant on Disney's "Man in Space," a 50-minute television program designed to educate viewers on advancements in rocket propulsion and coincide with the opening of the park. Disney also tapped von Braun to help with the look of Tomorrowland, commissioning his input on the TWA Moonliner, a V-2-inspired structure that would tower over the other future-themed attractions. The Moonliner, a free-standing rocket taller than Sleeping Beauty's castle, solidified the V-2 rocket's transformation from Nazi terror weapon to form of civilian transportation. Sponsored by TWA, a well-known commercial passenger airline, the Moonliner conjured a rocket that functioned as any jetliner would—a comfortable method of travel to faraway places.

Today, as spaceflight continues its commercial turn, nostalgia for early days of the Space Age has reinvigorated interest in the classic shapes that characterized the early Space Age. But it was never obvious or inevitable that "spaceships" would resemble the V-2 in the popular imaginary: the Apollo program's lunar lander, the closest humanity has ever come to a proper spaceship, looked nothing like the V-2. There is very little air on the moon, meaning the lander didn't need the sleek aerodynamic shape we'd for so long attributed to human exploration of a celestial body.

In 1944, the German V-2 exemplified the frightening potential of advancing military technology. Less than a decade later, the V-2's chief architect would contribute a decorative version of the same missile to an amusement park in the homeland of his former enemy. In 1962, the TWA Moonliner was renamed after Douglas Aircraft Company—an important wartime defense contractor—took over as its primary sponsor. The Douglas Moonliner remained displayed in the park until 1967, when it was moved to park storage to make room for redesigned attractions. But a vestige of the V-2 remains today: a smaller model of the missile-shaped Moonliner is still used to advertise a *Toy Story*-themed pizza restaurant at Disneyland's Anaheim location.



Tardi's cover for Metal Hurlant *n°9 (1976) depicts a robot eating the iconic moon rocket from Hergé's* Tintin, *an image that symbolizes the new generation of sci-fi artists challenging the old guard.*

DR. LOIS ROSSON'S FURTHER READING SUGGESTIONS:

This essay draws primarily from Michael Neufeld's biography *Von Braun: Dreamer of Space, Engineer of War* (Vintage Books, 2008), Catherine Newell's short article "The Strange Case of Dr. von Braun and Mr. Disney: Frontierland, Tomorrowland, and America's Final Frontier," in the *Journal of Religion and Popular Culture* (Volume 25, Number 3, Fall 2013, pp. 416-429), and Howard McCurdy's *Space and the American Imagination* (Johns Hopkins University Press, 1995). For a scholarly source on the history of Project Paperclip, see Monique Laney's *German Rocketeers in the Heart of Dixie: Making Sense of the Nazi Past during the Civil Rights Era* (Yale University Press, 2015). For a famously breezy beach read about rocket development at Peenemünde, see Thomas Pynchon's *Gravity's Rainbow*. For a character lampooning the influence of Operation Paperclip engineers on the postwar military industrial complex, see Kubrick's 1964 film *Dr. Strangelove or: How I Learned to Stop Worrying and Love the Bomb*. As of June 2025, Walt Disney's 1955 "Man in Space" is available to stream on YouTube.

By **Jean-Claude Mézières**

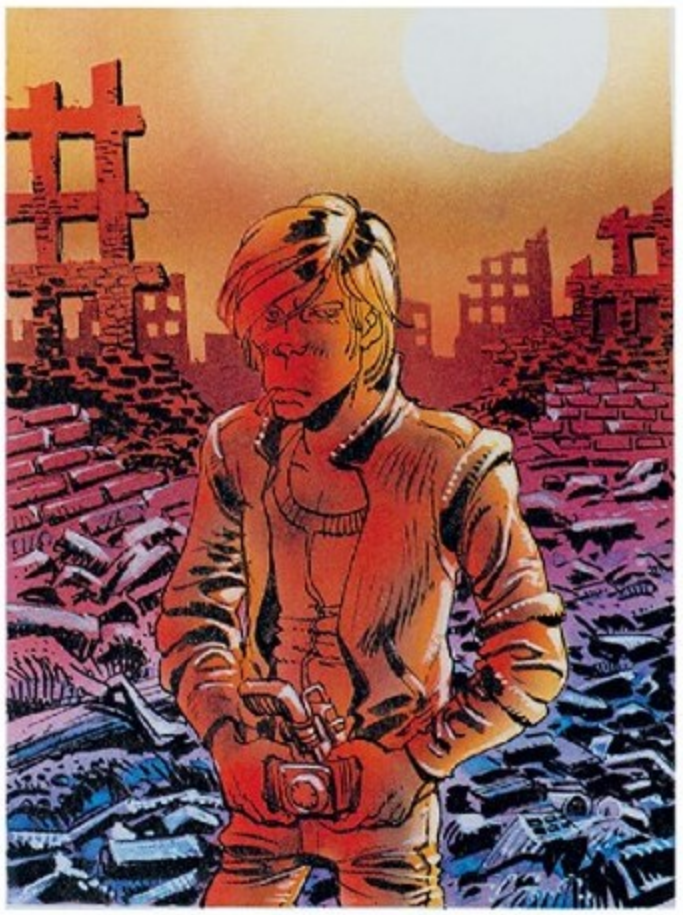
SPACE MARAUDERS

IT WAS BOUND TO HAPPEN! THIS ONE NIGHT, I REMEMBER, THE "PZiNS" CAUGHT US! US, A BUNCH OF BETELGEUSE *COMANCHEROS* STUPIDLY NABBED BY A PATROL FROM THE *NORTHERN* iNSECURiTY ZONE, RiGHT AS WE WERE ABOUT TO BRiNG BACK A NiCE PACKAGE OF NUTRiTiONAL SNACKS WE STOLE FROM THE HANGARS iN THE MiLiTARY ASTROPORT! NEW ALBERTA WAS DOiNG A PERiPHERY SWEEP...



WE WERE LOOKING AT JAIL TIME... *LOTS* OF JAIL TIME! BUT AT OUR HEARING, SINCE WE WERE REALLY YOUNG, THE JUDGE MADE US A DEAL: 10 YEARS IN A CORRECTIONAL FACILITY... OR ENROLLING IN THE SPACE LEGION'S SPECIAL FORCES FOR 15 YEARS! MY BUDDIES SAID NO, BUT I DIDN'T HESITATE AND I SIGNED UP! THE NEXT DAY, I WAS TRANSFERRED TO THE EARTH FORCES' TRAINING CENTER...



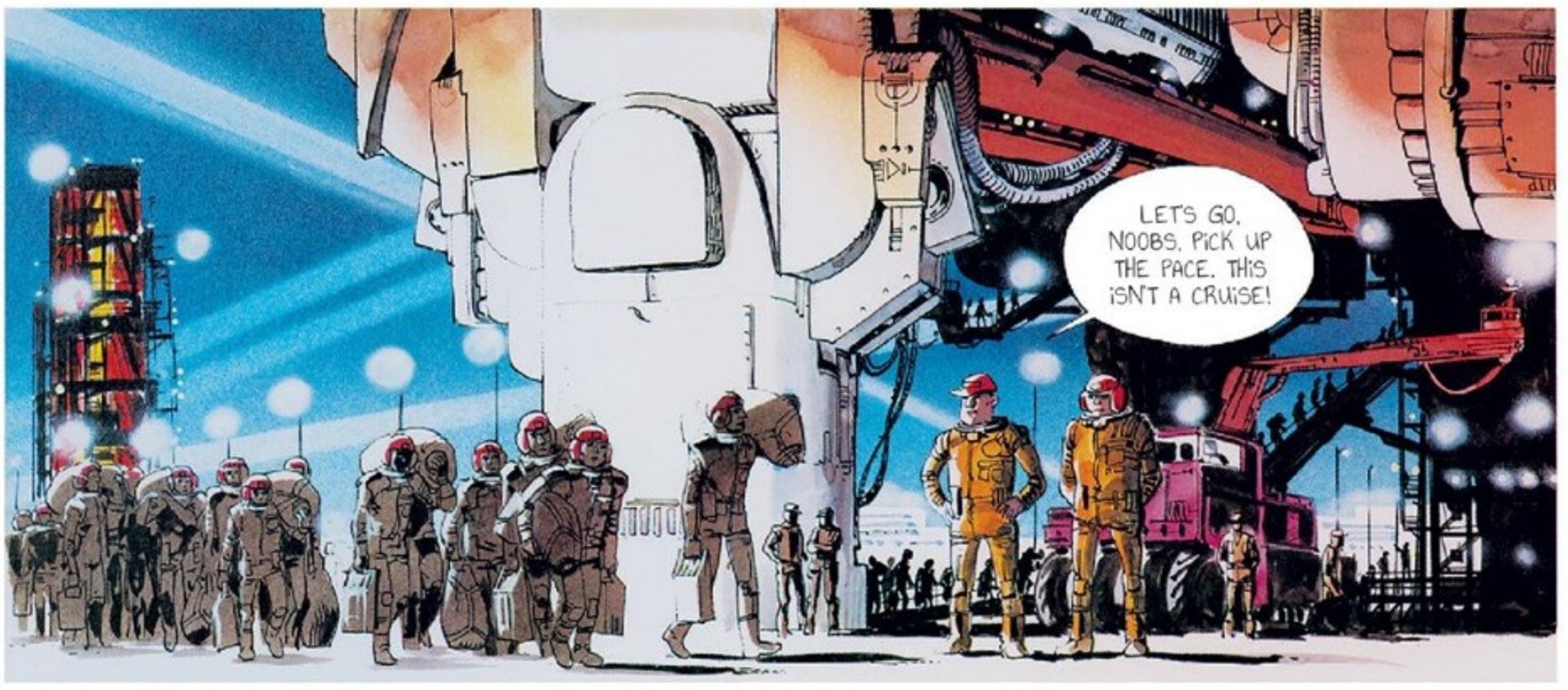


IT WASN'T EASY AT FIRST, BUT I QUICKLY LEARNED THAT I HAD TO TOE THE LINE... THEN THINGS CHANGED, AND GRADUALLY THE LITTLE HOODLUM FROM THE INSECURITY ZONE BECAME A TRUE SOLDIER...

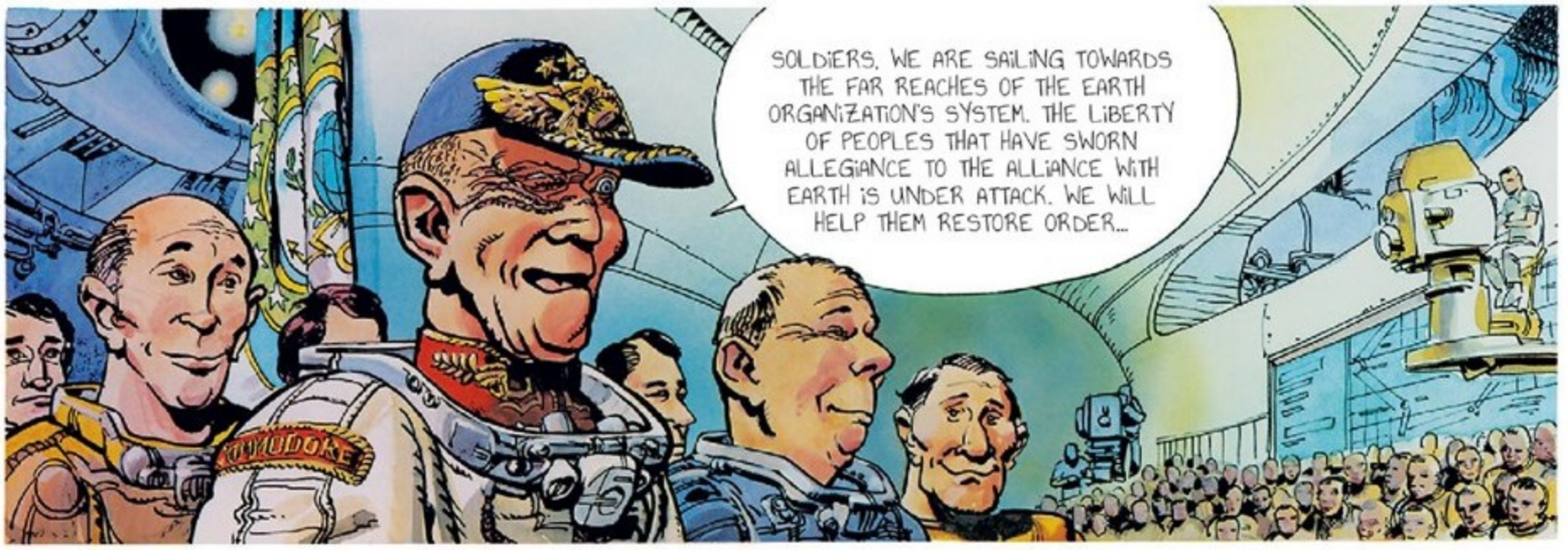
I LEARNED HOW TO HANDLE SOPHISTICATED WEAPONS, I LEARNED HOW TO OBEY AND THEN TO COMMAND: THE SPACE LEGION HAD FORGED ME IN ITS MOLD.

ONE DAY, WE GOT SOME BIG NEWS: THE EXPEDITIONARY CORPS HAD TO BE ON STANDBY; WE WERE BEING SENT ON A MISSION...





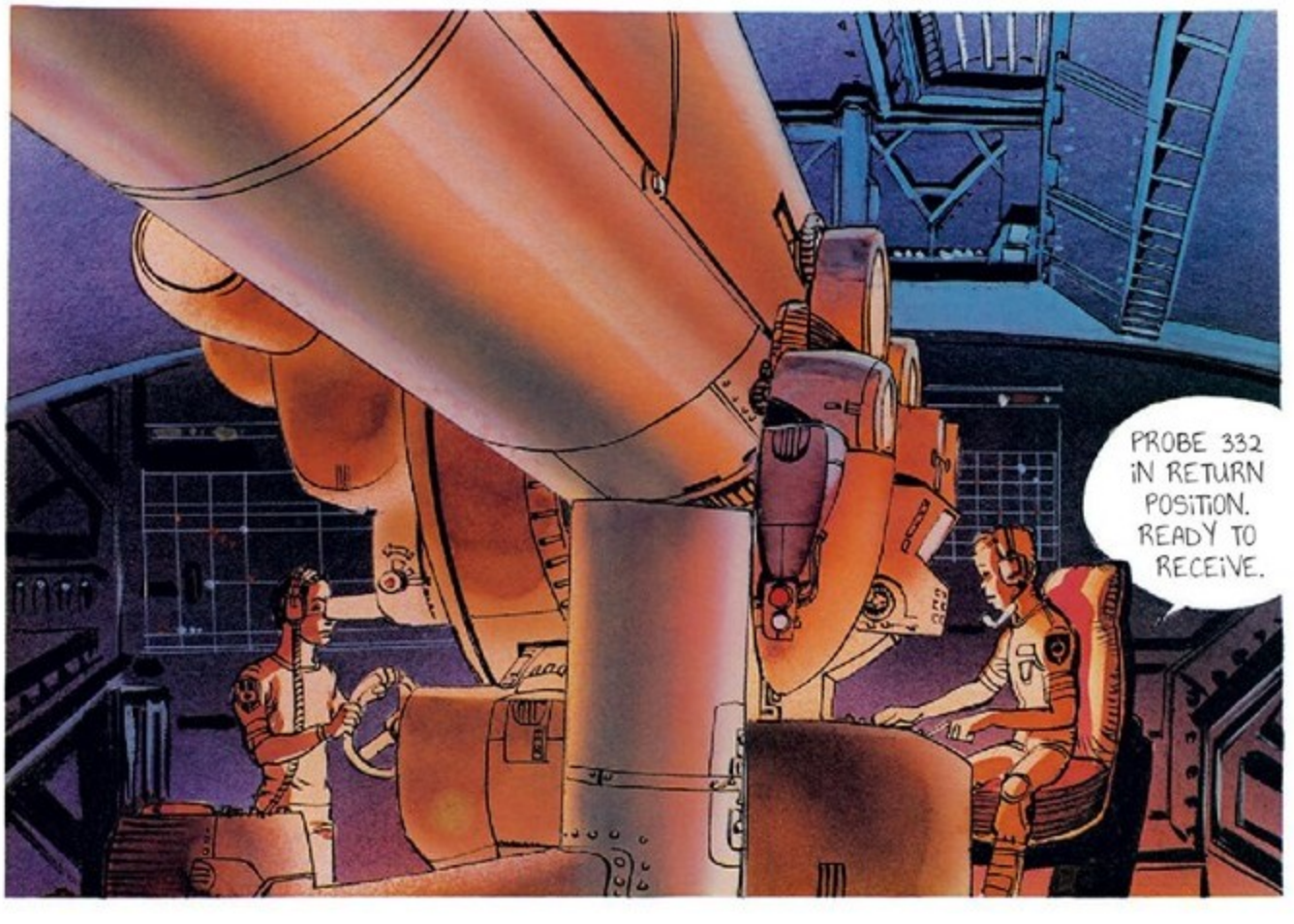

AND THUS THE SUPERCARGO MARILYN MONROE OF THE UNITED FORCES OF EARTH TOOK OFF WITH ALL THE POWER OF ITS ENGINES, CARRYING 10.000 SPECIAL FORCES ABOARD WHO WERE ITCHING FOR SOME ACTION...



"...AND CHASE THE MANIPULATORS THAT ARE CHALLENGING THE HARMONY IN THESE REGIONS. YOU WILL EXECUTE VARIOUS PEACEBUILDING AND POLICING OPERATIONS TO HELP OUR ALLIES. THE EARTH ORGANIZATION IS PROUD OF YOU."

WE HAD BECOME OPERATIONAL. A FLURRY OF ACTIVITY TOOK OVER THE SHIP. THE GREAT CRUSADE WAS UNDERWAY.





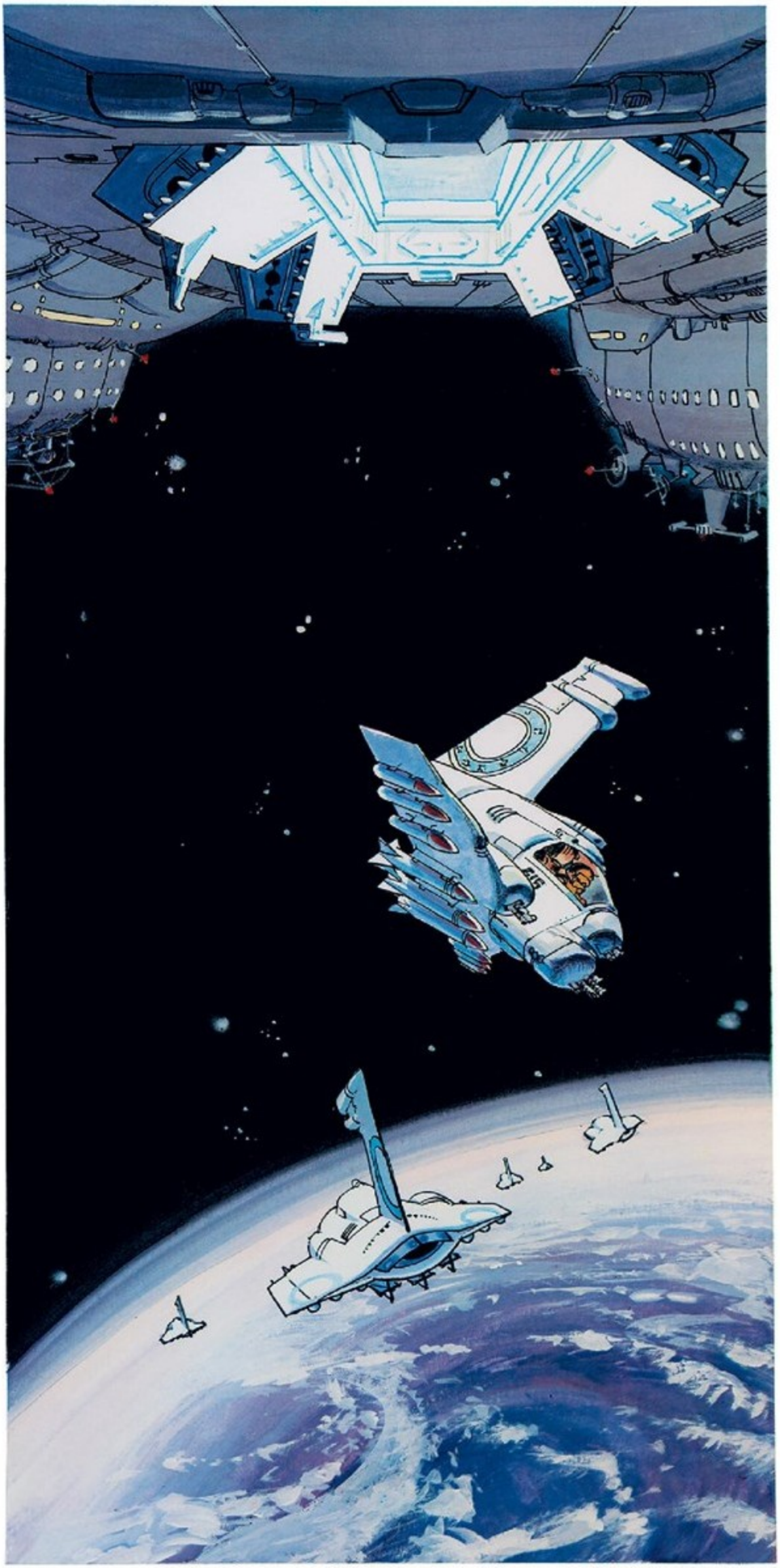
I HAD BEEN ASSIGNED TO THE POST THAT RECEIVES AND DECRYPTS SPY PROBES WE SENT OUT OVER REBEL ZONES. IT CAME WITH A HIGH LEVEL OF RESPONSIBILITY AND WAS CRUCIAL TO THE EXPEDITION'S MISSION.

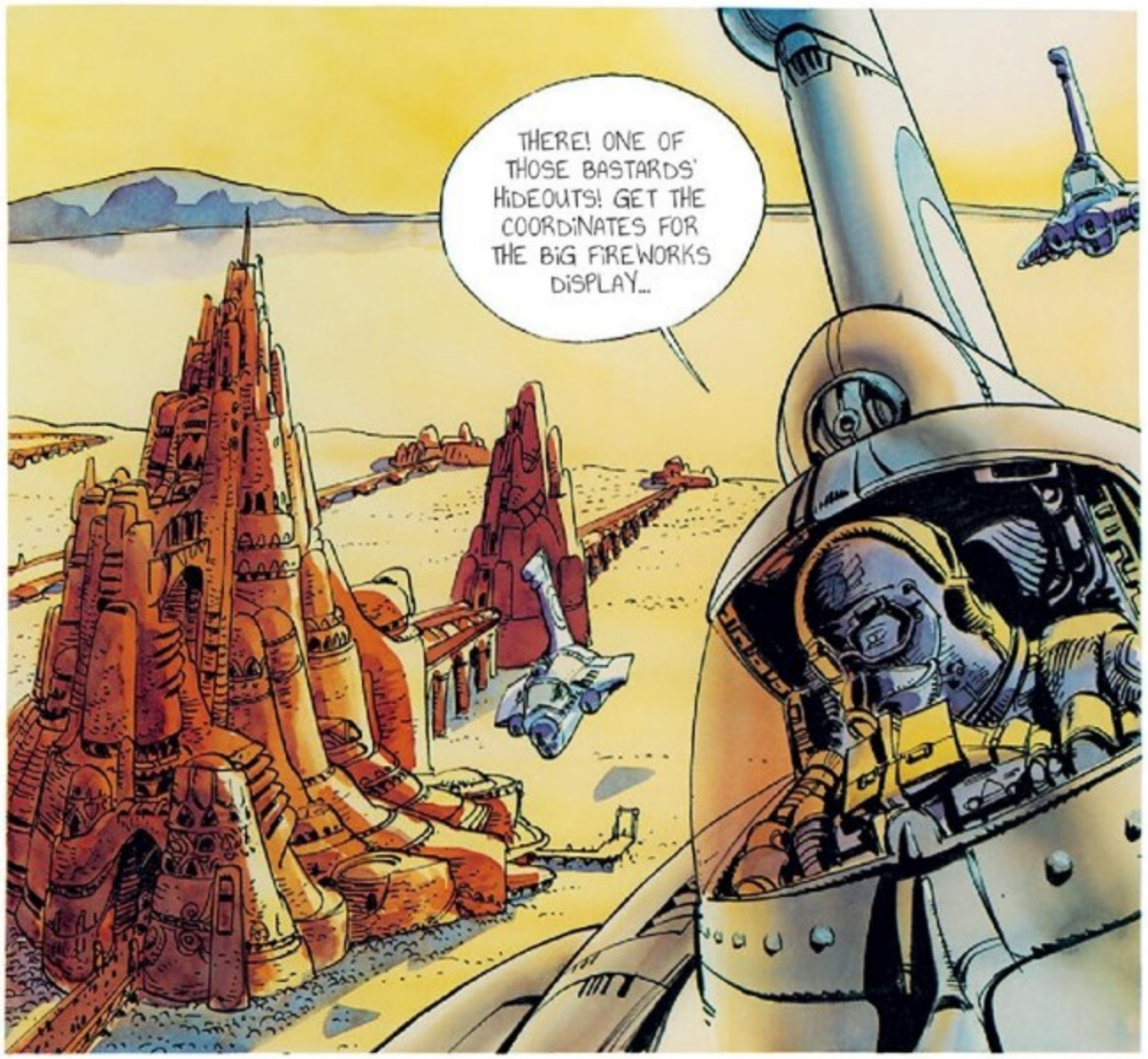
OF COURSE, I WOULD HAVE PREFERRED JOINING THE RECON PATROLS, BUT I HADN'T SCORED HIGH ENOUGH ON THE PILOT TESTS, AND SO I LOOKED ON WITH ENVY AS THE PILOTS BOARDED THEIR AIRCRAFTS...



BUT THERE WAS A SPIRIT OF CAMARADERIE IN THE AIR AND THESE GUYS WE ALL ADMIRED SHARED THEIR GLORY WITH US. I REMEMBER WHAT ONE OF THEM SAID AS HE CLOSED HIS COCKPIT BEFORE TAKING THE LEAP INTO THE GREAT UNKNOWN:









IT WAS A LONG, INCREDIBLY EFFECTIVE CAMPAIGN. ALBEIT A BIT BORING FOR THOSE WHO REMAINED IN ORBIT ABOARD THE SHIP. THE COMMANDO TEAMS MADE RAPID INCURSIONS INTO REBEL TERRITORY, GAVE US THE POSITIONS OF THE NERVE CENTERS, AND, FROM UP ABOVE, WE WOULD LAUNCH A FEW MISSILES AT THEM, JUST TO CALM THAT TRASH DOWN FOR A WHILE. AFTERWARDS, WE WOULD MOVE ON TO THE NEXT PLANET...



ABOARD THE SHIP, WE DIDN'T MISS A SINGLE SECOND OF THE ACTION THANKS TO THE CAMERAS ATTACHED TO THE BOMBS AND TO THE COMMANDER'S TECHNICAL COMMENTARY. IT WAS RIVETING. SOON, CALM WOULD BE RESTORED AND WE WOULD BE ABLE TO DISEMBARK ON THE GROUND AND COMMENCE ALLY REORGANIZATION OPERATIONS.

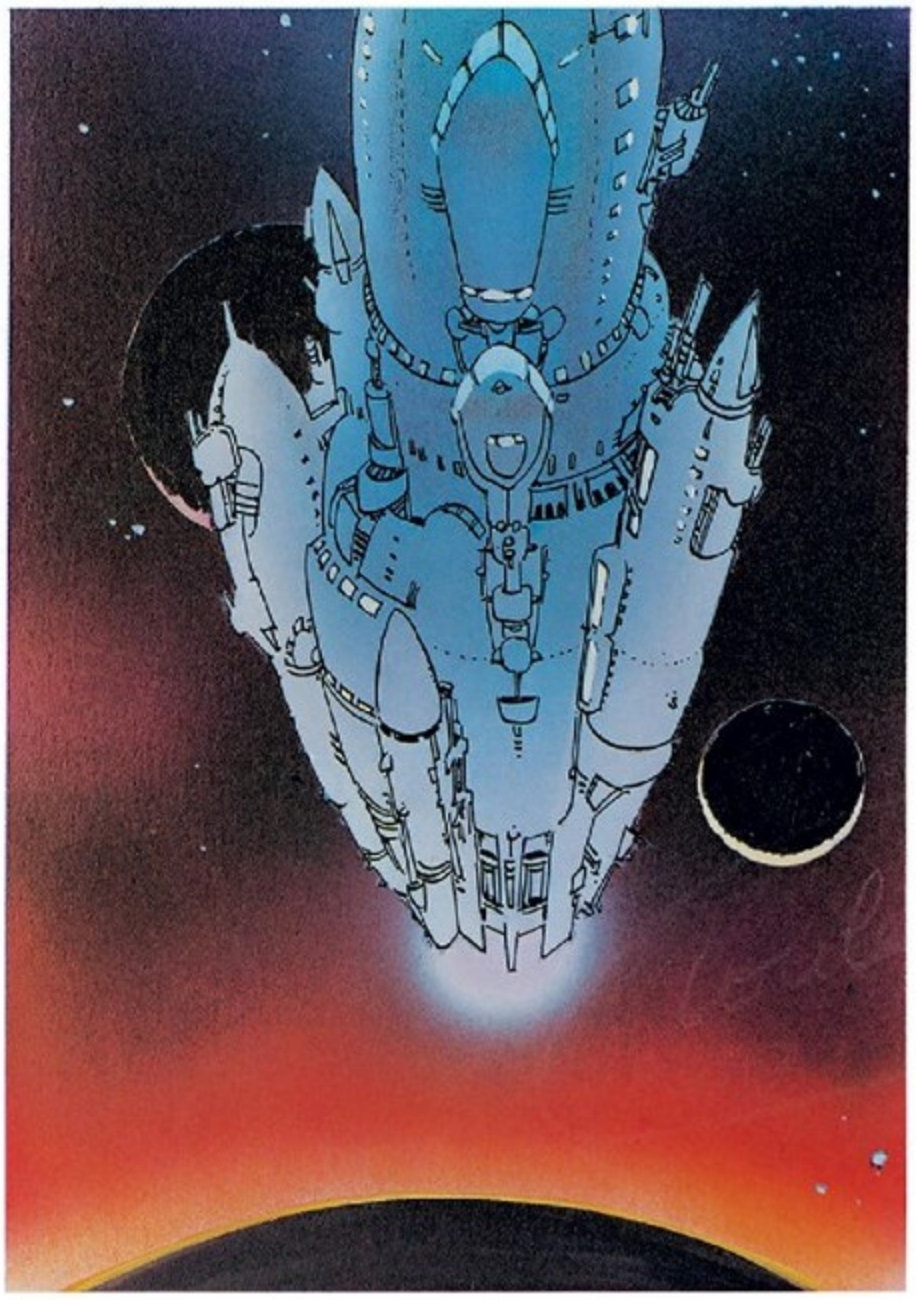


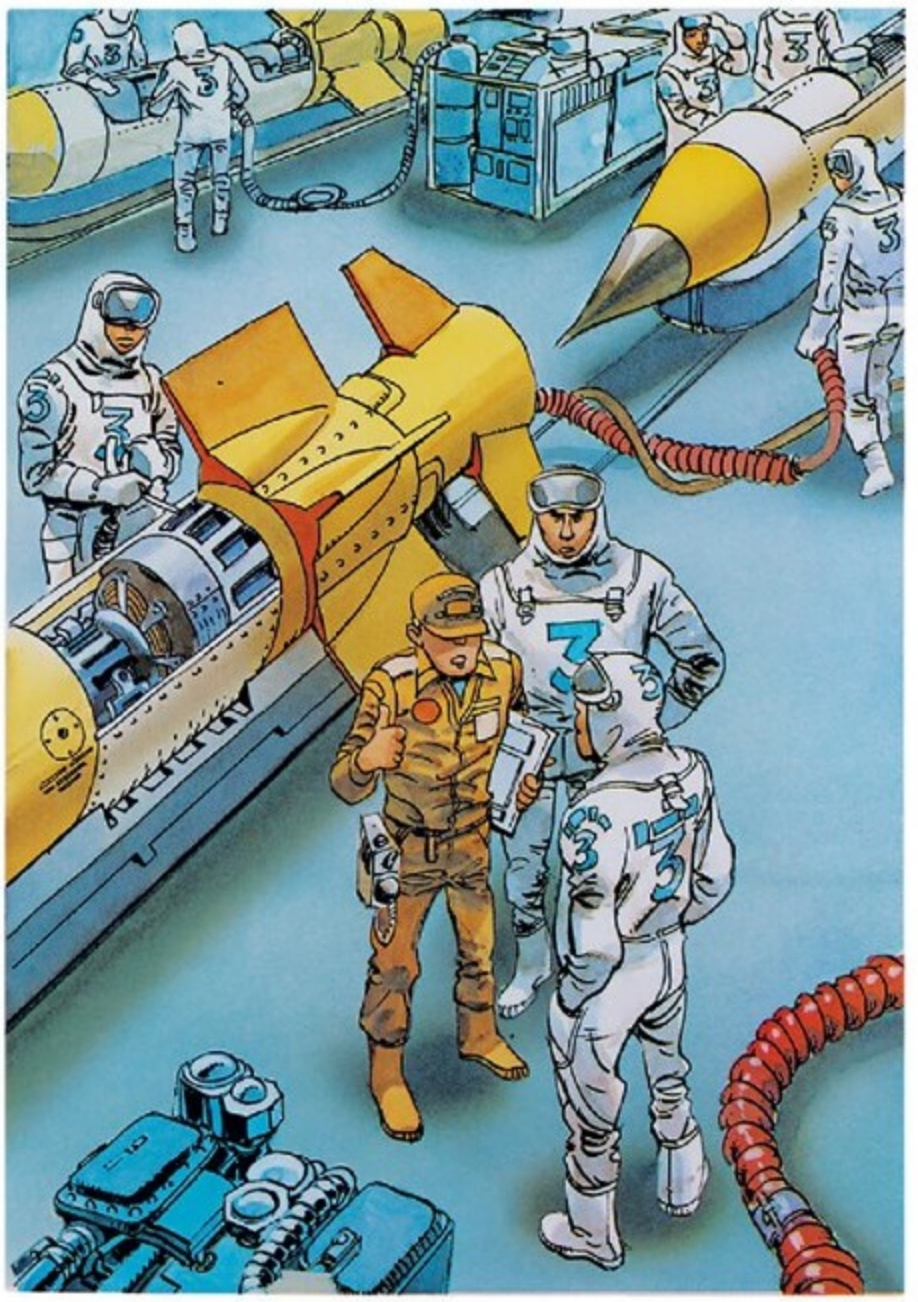


I EVEN GOT MY FIFTEEN MINUTES OF GLORY! WE WERE PATROLLING, EVERYTHING WAS OK, WHEN SUDDENLY THIS WHACK JOB, WHO WAS PROBABLY A LITTLE SHAKEN FROM THE BOMBINGS, LUNGES AT ONE OF MY BUDDIES! I REACTED IMMEDIATELY AND BLASTED HIM WITH MY LASER GUN... THIS EARNED ME THE COMMANDER'S PERSONAL PRAISE AND... A MEDAL!!



THE EXPEDITION LASTED A LITTLE WHILE LONGER. THE LAST HOMES OF THE REBELLION WERE DESTROYED AND WE EMBARKED ON THE LONG FLIGHT HOME TO THE MOTHERLAND! THERE WAS ONE HELL OF A GREAT VIBE ON BOARD! IT WAS NON-STOP PARTYING FOR I DON'T EVEN KNOW HOW LONG... THEN, BACK ON EARTH, THANKS TO MY EXCELLENT REFERENCES, I LANDED A WELL-PAID, CUSHY JOB AS SUPERVISOR AT A BIG WEAPONS FACTORY.





NOWADAYS, I'M MARRIED AND I HAVE A SON, A REAL TOUGH GUY, JUST LIKE HIS OLD MAN! BUT I'VE GOT MY EYE ON HIM! WE'RE LIVING IN NEW ALBERTA AGAIN, IN A NICE AREA, AND I WAS ELECTED MILITIA CHIEF FOR MY LEVEL...

IT TOOK A LOT OF DETERMINATION TO GET WHERE I AM, AND MY FAMILY CAN LOOK TO THE FUTURE WITH PEACE OF MIND. IT'S WHAT I'M MOST PROUD OF!



Enki Bilal has been one of the most successful European comic book authors of all time. He co-created *Exterminator 17* with Jean-Pierre Dionnet in *Metal Hurlant* n°11 in 1976.

"I AM A POLITICAL EMIGRANT..."

—ENKI BILAL

"I was born in Belgrade, in a country then called Yugoslavia, and moved to Paris when I was nine.

My hometown and the capital of the country, Belgrade, had suffered during the Second World War, before a chain of political confrontations began between Stalin and Tito.

Tito had partially rebuilt the city, but he left its wounds open: emblematic places scarred by the war, shell holes, and the like. There was this sign that read, 'I resisted the Nazis; I'm the one who defeated them in the Balkans...' This was the 1950s, and I witnessed all of it. When you're a child, you record everything, you absorb it all—the first emotions: visual, olfactory, all the senses are engaged.

When I arrived in France, though I was still very young, I felt the political difference compared to Yugoslavia. Even though Tito had been endorsed by the West, he was still a dictator. He had eliminated the opposition. There was always this sense of distrust everywhere.

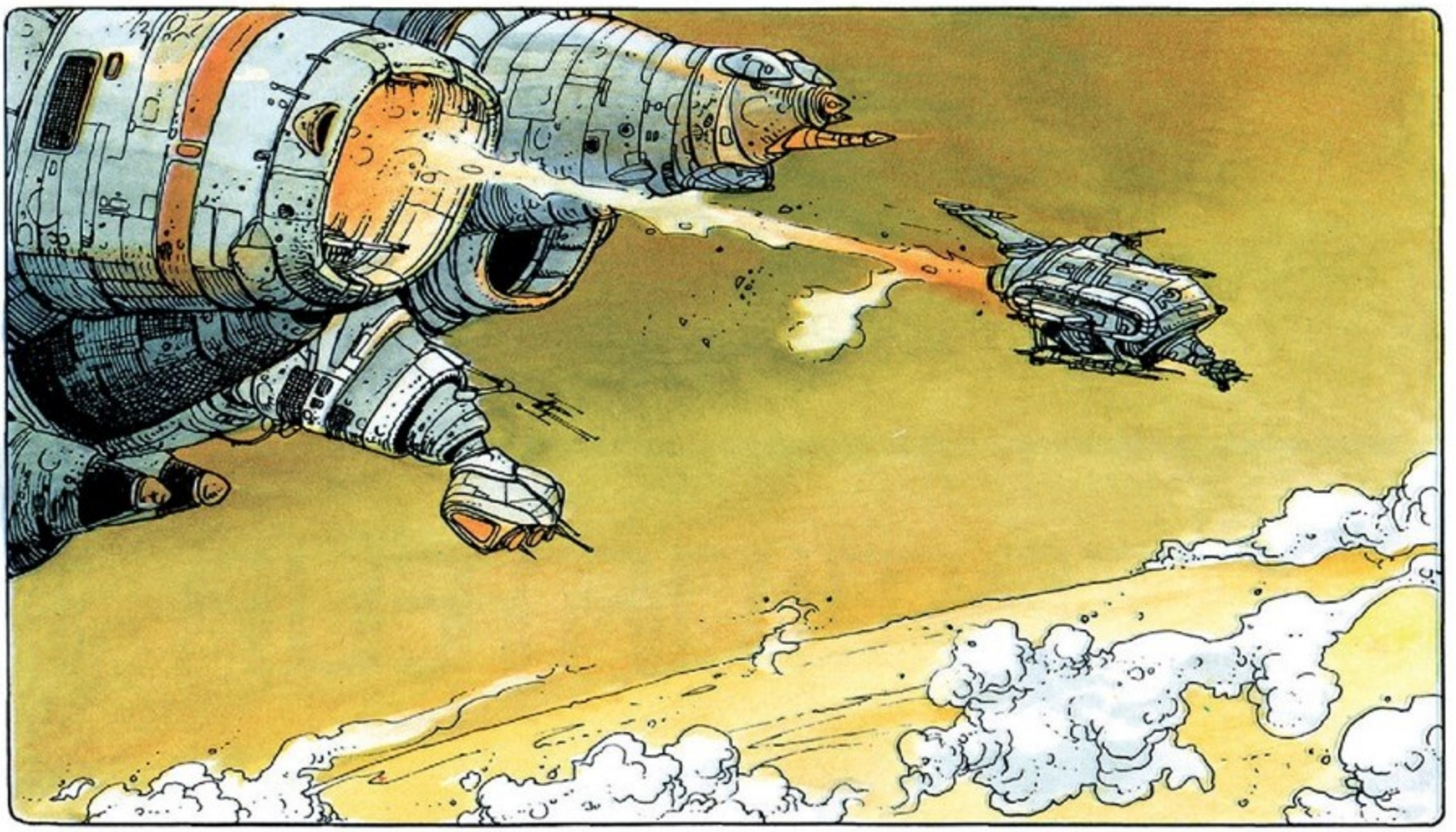
In France, everything was smooth, orderly, clean. But I held on to that memory of Belgrade, with its bullet holes, its fortress where I used to play as a kid—right across from the place where I was born. The park filled with tanks, cannons, armored vehicles, and planes. When you grow up, that all comes out in one way or another. The political climate and those images of destruction have undoubtedly influenced my work and my graphic expression. When I draw something too smooth, it bores me; for me, it just doesn't work—it has to have lived, it has to bear marks.

I'm convinced that the places we are born shape what we become."

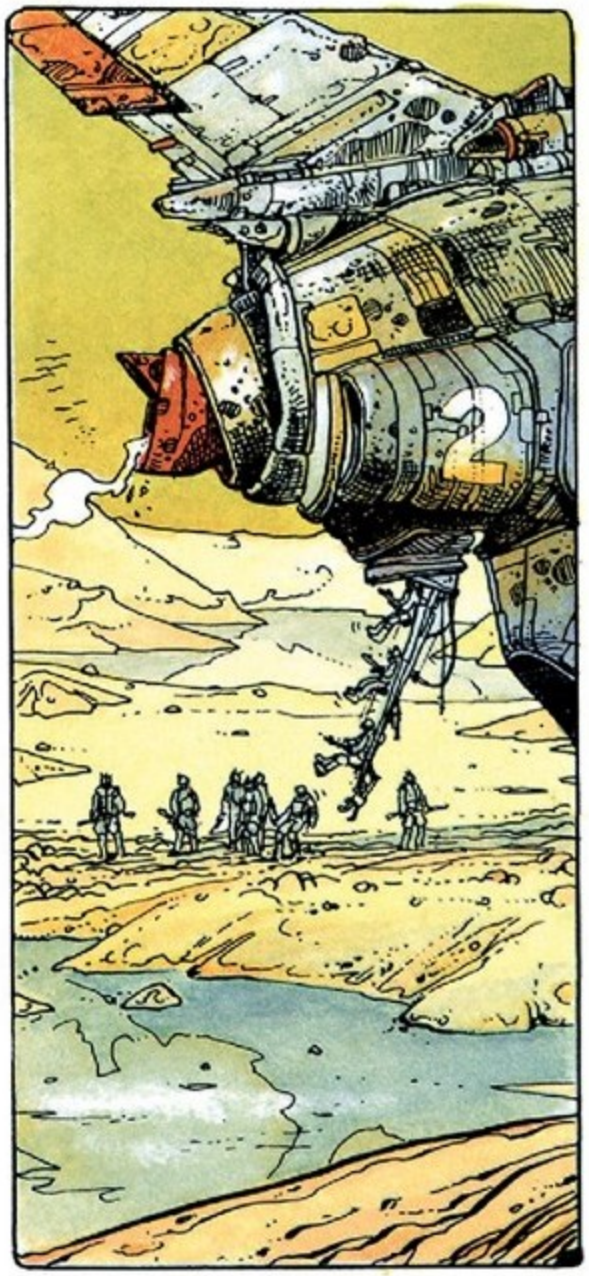
Photograph by Jerry Frissen

EXTERMINATOR 17

Part 1, Story by **Jean-Pierre Dionnet** and Art by **Enki Bilal**



...SURPRISE ATTACK AGAINST NOVACK PLANETOID - CONSORTIUM REPRISAL FOR BREACH OF ALLEGIANCE - FORCES DEPLOYED: Y-BARGES WITH







7-MOEBIUS EXTERMINATION CAPACITY - L.O.B. STRATEGY - VICTORY OVER PLANETOID ANTICIPATED IN 12 MINUTES, 45 SECONDS (5P MARGIN OF ERROR)

17

KEEP THAT ONE IN SIGHT, BY ELVIS!

002

A"17"... AFTER ALL THESE YEARS, THERE'S STILL A"17"...

TAKE COMMAND, EPHRAIM. AND WHEN THE CEREMONY BEGINS, COME FETCH ME...

CONT

HE-SEEMS-EMOTIONAL.- WHY?

PRESSE 2

FOLLOW ME. I'LL EXPLAIN...

WHERE-ARE-WE?

IN THE ANDROID GALLERY.

CONTRÔLE SX61

IT CONTAINS ALL THE DATA ABOUT THE ARTIFICIAL MEN THE MASTER CREATED.

THIS ONE'S THE LATEST MODEL.

AND THIS ONE'S THE MOST COMMON... IT STILL MAKES UP THE BULK OF OUR ARMIES.

AND THIS ONE'S THE GRANDFATHER OF THEM ALL... MODEL '17'!

AND-MODELS-1-THROUGH-16?

16 ATTEMPTS, 16 FAILURES... MODEL '17' WAS THE FIRST TO BE OPERATIONAL...

IT WAS ALSO THE LAST MODEL TO INCLUDE SOME OF THE MASTER'S OWN CELLS... MODEL '17' IS MUCH MORE THAN A REPLICA... IT'S THE MASTER HIMSELF, AT 30 YEARS OF AGE... NOW YOU UNDERSTAND WHY HE SEEMS EMOTIONAL TODAY...

NOTED!-AND-I-SEE-NOT-EVEN-THE-MASTER-MANAGED-TO-RECREATE-THE-HUMAN-EYE.

TRUE... BUT AN ANDROID EYE IS EVEN MORE ADVANCED THAN A HUMAN EYE, AND NOT AS FRAGILE... THIS ONE HERE...

CLIC

BUZZZZZZZZZZZZZ

!

RED ALERT?! LET'S SEE WHAT IT IS...

ALERTE ROUGE

TREATY SIGNED BY SIGMA-
TREATY SIGNED BY SIGMA-
ORDER IMMEDIATE HALT...
OPERATION IN PROGRESS
.....

WHAT'S-HAPPENING?

THE TREATY IS EFFECTIVE IMMEDIATELY... IF THERE'S NO TIME TO RETRIEVE GROUND TROOPS, WE DESTROY THEM... FOR LEGAL REASONS...

CAN-THE-DEACTIVATED-ANDROIDS-BE-SALVAGED?

NO... THEY'LL NEVER FUNCTION AGAIN... THEIR CIRCUITS ARE COMPLETELY DESTROYED...

I'VE COME TO FETCH YOU, MASTER..

TODAY IS A GREAT DAY...

A GREAT DAY...?

I AM OLD, AND THEY SPURN ME... A GREAT DAY, INDEED...

BUT... HUMANITY SALUTES YOU TODAY, AND THANKS YOU FOR WHAT YOU HAVE DONE...

HUMANITY THANKS ME FOR CREATING THE ANDROIDS, AND FOR BESTOWING MY CREATION ON THE ARMY WHETHER I WISHED IT OR NOT... HUMANITY THANKS ME FOR

THE EXTERMINATORS!

YOU'VE NEVER SPOKEN THIS WAY, MASTER... SEEING THAT MODEL 'I7' MUST HAVE UPSET YOU...

SPEAKING OF WHICH, I SHOULD TELL YOU THE PEACE TREATY WAS SIGNED, AND THE 'I7' WAS DEACTIVATED WITH THE OTHERS...

CLANG

MASTER! ARE YOU ALL RIGHT?

YES...

HELP ME...

CLAP
CLAP
CLAP
CLAP
CLAP

SILENCE!
THE MASTER IS ABOUT TO SPEAK!

I SIMPLY WISH... TO SAY...

OHHH...

THERE IS NO CAUSE FOR ALARM! THE MASTER OFTEN SUFFERS EPISODES LIKE THIS!

LEAVE US... I'LL STAY WITH HIM UNTIL THE GLIDER COMES...

23

MASTER!

I'LL BE FINE... CAN YOU GET ME A GLASS OF WATER, EPHRAÏM?

WC

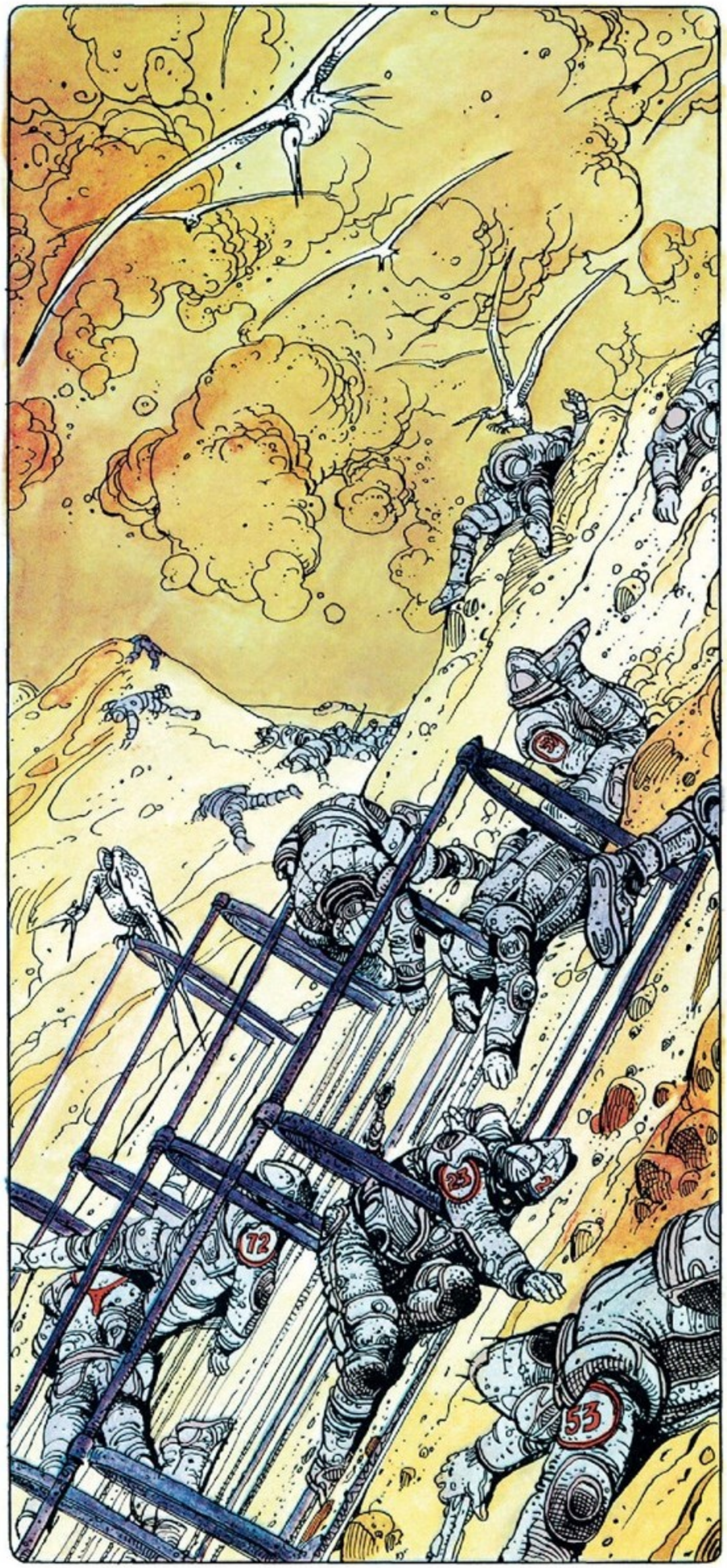
TIP TIP TIP

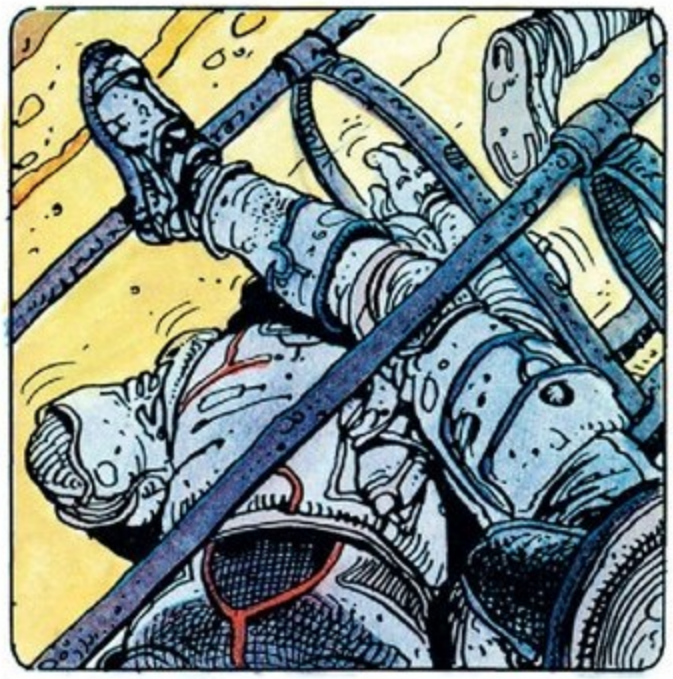
CLIC

HE'S DEAD...

HURRY! HE'S IN HERE!

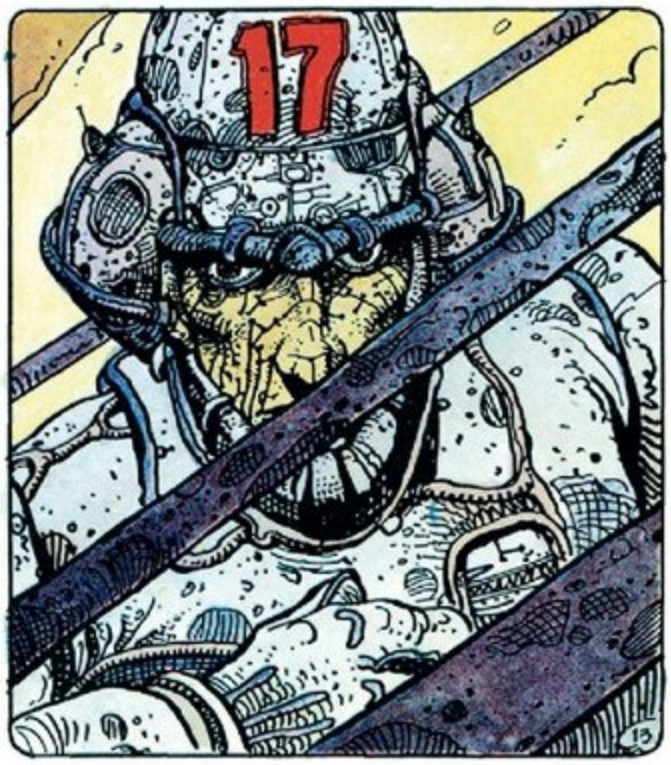
CLANG


72
23
53








17

THE CENTRAL COMPUTER WAS VERY SPECIFIC... AT THE SAME INSTANT THE MASTER OF THE ANDROIDS DIED, ONE OF HIS CREATIONS ON GALIGAI SPRANG BACK TO LIFE...

A DEACTIVATED ANDROID CANNOT COME BACK TO LIFE, MASTER AOUDA... THAT'S IMPOSSIBLE, AND YOU KNOW IT...

YES, KEROUSSIN... I KNOW IT, AND THE CENTRAL COMPUTER KNOWS IT... BUT IT CONFIRMED THAT THE ANDROID - AN ANCIENT MODEL - DISPLAYED NERVE AND BRAIN IMPULSES IDENTICAL TO THE MASTER'S...

...AND THAT THE MASTER'S SPIRIT, AT THE MOMENT OF HIS DEATH, WAS TRANSPORTED INTO THE BODY OF THE ANDROID...

NONSENSE!

OUR COMPUTERS, MADE OF DRIFTING SPACE NETWORKS, DETECTED A NON-CLASSIFIABLE PARTICLE FLUX ORIGINATING FROM THE MAIN LABORATORY... THE FLUX DISAPPEARED TOWARDS GALIGAI IN THE MOMENT OF THE MASTER'S DEATH...

THE COMPUTER CONCLUDES IT WAS AN INSTANTANEOUS MENTAL VOYAGE, AS DESCRIBED IN CERTAIN MYTHICAL RELIGIOUS AND PARA-RELIGIOUS TEXTS...

HE WAS UNSTABLE... A GENIUS, BUT VERY UNSTABLE...

HE WAS A CRACKPOT.

IF THE ANDROIDS EVER FOUND OUT THAT ONE OF THEM HAD BEEN REVIVED...

WE'LL HAVE TO KILL HIM...

BUT HOW? WE CAN NO LONGER CALL UPON THE EXTERMINATORS...

THE NEO-MANICHEES WILL TAKE CARE OF HIM...

THOSE IMPOS-TERS !

NO ARGUMENTS, PLEASE! IT WAS THE COMPUTER WHO CHOSE THEM, AND SUMMONED THEM... AND NOW, BE QUIET...

THEIR ENVOY IS HERE...

GREETINGS, MEN OF MATTER...

FIRST, I MUST ASK YOU NOT TO APPROACH MY HOLOGRAPH...

...I HAD TO UNDERGO EXTENSIVE PURIFICATION JUST TO MEET WITH YOU...

HAVE YOU COME ONLY TO INSULT US, MAN OF VOID ?

15

I HAVE COME TO TELL YOU WE ACCEPT THE TASK OF DESTROYING YOUR MACHINE...

SO YOU DIDN'T TELL THEM THE "MACHINE" IS REALLY A MAN?

QUIET!

TO DO SO, WE WILL BE FORCED TO DESCEND TO THE PLANET IN THE FLESH, AND MINGLE WITH DARKNESS... WE WILL NAME OUR PRICE, AND THERE WILL BE NO NEGOTIATION!

FARE-WELL!

POUF

ZPPZOT

DON'T WORRY... THEY NEED MONEY FOR THEIR INTERPLANETARY TRANSPORTS... BESIDES, SINCE THEY DESPISE MATERIAL LIFE SO MUCH, THEY HAVE PERFECTED THE ART OF ELIMINATING IT...

...PERFECTED THE ART OF ELIMINATING IT...

I BEG YOU NEVER TO REVEAL WHAT YOU HAVE JUST HEARD! I WOULDN'T HAVE BROUGHT YOU IF I HAD KNOWN...

DON'T WORRY... AND NOW, I'LL EXPLAIN HOW WE'LL COVER ALL THIS UP...

...HOW WE'LL COVER ALL THIS UP...

IT'S A THING HUMANS HAVE NEVER KNOWN OF: THE STRONG TIES LINKING ROBOTS AND ANDROIDS...

THOMAS HAD BEEN ADRIFT FOR 14 DAYS WHEN HE SAW THE STRANGER'S VESSEL...

IT WAS UNLIKE ANYTHING HE HAD EVER SEEN... IT WAS...

IT WAS... EXCUSE ME... I'LL CONTINUE LATER...

OH NO YOU DON'T, STORYTELLER! YOU'LL CONTINUE NOW!

I SAID, NOW!

HEY!

THAT BASTARD ALMOST BROKE MY ARM!

I'LL HANDLE THIS...

TOO CROWDED IN HERE FOR YOU, PROSPECTOR...?

AT LEAST SHOW US YOUR FACE...

HUH!?

AN EXTERMINATOR!!

THEY'VE COME TO KILL US!

RUN!

WE SHOULD LEAVE QUICKLY... THEY'LL BE BACK ONCE THEY REALIZE YOU'RE ALONE...

WHY AREN'T YOU AFRAID OF ME? AND HOW DO YOU KNOW I'M ALONE?

I'M NOT AFRAID OF ANYONE WHO HELPS ME... AS FOR YOUR SECOND QUESTION, I CAN ONLY SAY THAT ONCE I BEGIN TO TELL A STORY, I KNOW ALL THAT GOES ON AROUND ME... NOW LET'S GO!

THEY'LL BE HAPPY TO TAKE US... THEY'VE NEVER HAD TWO STORYTELLERS ON BOARD AT ONCE...

COME!

BUT THAT'S A BREEDER SHIP... IT WILL WANDER RANDOMLY FROM PLANET TO PLANET, AS ALL ITS PASSENGERS DIE ON BOARD, HOPING THEIR DESCENDANTS WILL ONE DAY FIND A BETTER WORLD...

WAIT, CLETON! YOU'RE CRAZY!

WHEN THEY SHUT THE DOORS TO THE OUTSIDE WORLD, WE'LL BE ENTOMBED FOREVER IN THAT FLYING COFFIN!

PUT ON YOUR MASK! A HUMAN COULD NEVER SURVIVE THE BRITTLE AIR OF THIS ASTEROID!

AND TRUST ME... I KNOW WHAT I'M DOING...

NOW, CLETON... TELL ME HOW WE'RE GOING TO GET OUT OF HERE...

ARE YOU SURE YOU WANT TO GO BACK TO EARTH?

VERY SURE! FATE HAS GIVEN ME A SECOND CHANCE... I WANT TO UNDO WHAT I HAVE DONE...

I WANT TO FREE THE ANDROIDS...

IN THAT CASE, THE FIRST THING YOU NEED IS A CHANGE OF FACE... YOU'LL BE SPOTTED RIGHT AWAY... EARTH'S GOVERNMENT PROBABLY ALREADY KNOWS ALL ABOUT YOU...

EVEN HERE, YOU COULD BE RECOGNIZED AND KILLED AT ANY SECOND...

STORY DIONNET ART FINAL

BUT HOW DO I CHANGE MY FACE?

I BELIEVE THERE'S A PLASTIC SURGEON ON BOARD...

A PLASTIC SURGEON? ON A BREEDER SHIP?

YES... BUT DUE TO SOME MINOR INFRACTIONS, THEY PUT A RED MARK ON HIM...

WE'LL FIND HIM IN THE DARK AREA BEHIND THE ENTRY TUBES...

THE PEOPLE ON THIS SHIP ARE CONSTANTLY REBORN AS THEY WERE BEFORE... THE FIRST WHO CAME ABOARD CHOSE THE BEST SPOTS, AND NOW LOOK DOWN ON THE OTHERS FROM ABOVE... SO THE OUTCASTS HAVE NO CHOICE BUT TO HIDE THEMSELVES, FAR FROM THE GLOW OF LIGHTS...

WE'RE ALMOST THERE...

WAIT! I SENSE SOMEONE ABOUT TO ATTACK...

TCHAC

ARE YOU ALL RIGHT?

I'LL BE FINE... THEY SHOULD LEAVE US ALONE NOW...

23

COME IN! I WAS EXPECTING YOU... YOU MIGHT SAY YOUR VISIT WAS ANNOUNCED... WHAT CAN I DO FOR YOU?

SHOW YOURSELF... THERE'S NO RISK, HERE...

17

YOU'RE NOT THE FIRST DESERTER WHO WANTED TO ERASE HIS INSIGNIA...

EASY... IT WILL TAKE ONLY A FEW MINUTES TO REMOVE THE NUMBER, AND THEN I CAN RESHAPE YOUR FACIAL CONTOURS TO MAKE YOU HARDLY RECOGNIZABLE...

COME CLOSER!

BUT WHAT PAYMENT CAN YOU OFFER? ON EARTH, I KNEW A FEW DEVIANTS WHO WOULD PAY DEARLY FOR TWO HOURS ALONE WITH AN ANDROID...

24

STORY DIONNET
ART BILAL

BUT ALAS, NOT HERE... SO WHAT PAYMENT DID YOU HAVE IN MIND?

HOW ABOUT THIS?

?

!!

OH!! FORGIVE ME! I... COULDN'T HAVE KNOWN!

WHAT DID YOU DO?

A LITTLE TOUCH OF MAGIC... COMPLETELY HARMLESS!

OH, I DOUBT THAT... BUT IT DOESN'T MATTER..

I HAVE A NEW FACE NOW...

AND NOW, CLETON, IT'S TIME FOR YOU TO GET US OUT OF HERE...

TO TELL THE TRUTH, THAT'S NOT SOMETHING I CAN DO...

WHAT DO YOU MEAN?? WHEN WE BOARDED THIS SHIP YOU TOLD ME YOU KNEW WHAT YOU WERE DOING! YOU LIED TO ME!!

YOU LIED TO ME! I'LL KILL YOU!!

S... STOP... !...

I KNOW HOW TO GET OUT, BUT I CAN'T DO IT... NOT ON MY OWN...

FOLLOW ME... I'LL EXPLAIN...

CLETON

LIKE ALL BREEDER SHIPS, IT'S PROGRAMMED TO OPEN ONCE IT REACHES ITS DESTINATION.

AND IN FIFTEEN MINUTES, IT'S GOING TO REACH IT...

MORE TO THE POINT, IN FIFTEEN MINUTES YOU'LL MAKE IT THINK IT'S REACHED IT...

EXTERMINATOR 17

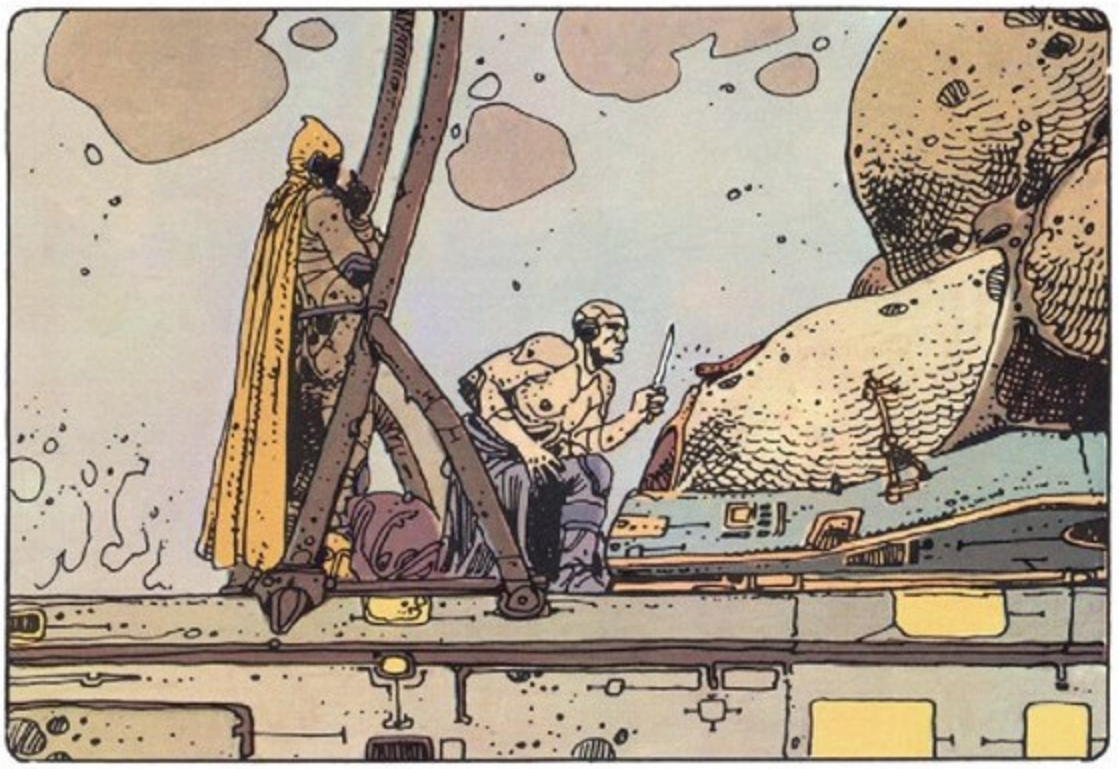
BUT HOW? WAIT... I THINK I UNDERSTAND...

CLETON

...THAT'S RIGHT... AS AN ANDROID, YOU CAN PLUG INTO THE CENTRAL BRAIN OF THE SHIP AND SIMULATE THE ARRIVAL..

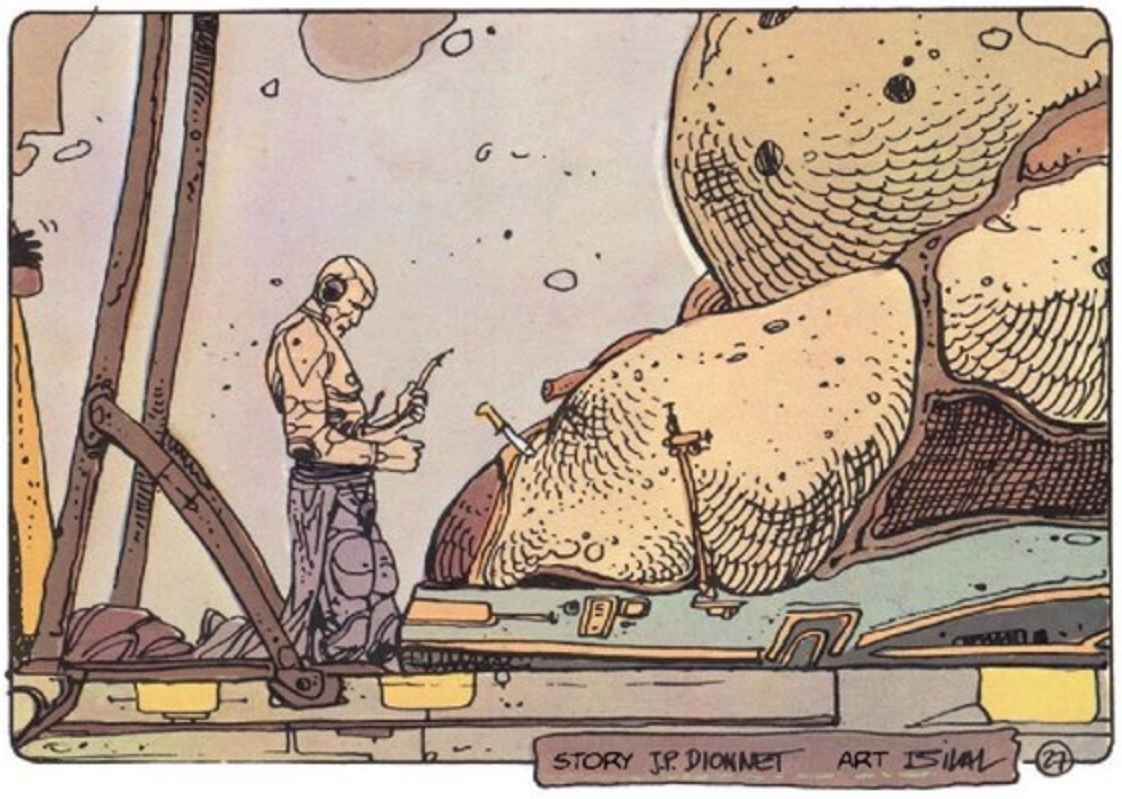
ONCE IT RECEIVES YOUR DATA, INDICATING IT HAS REACHED THE PROMISED PLANET...

...THE SHIP WILL START THE LANDING PROGRAMS...

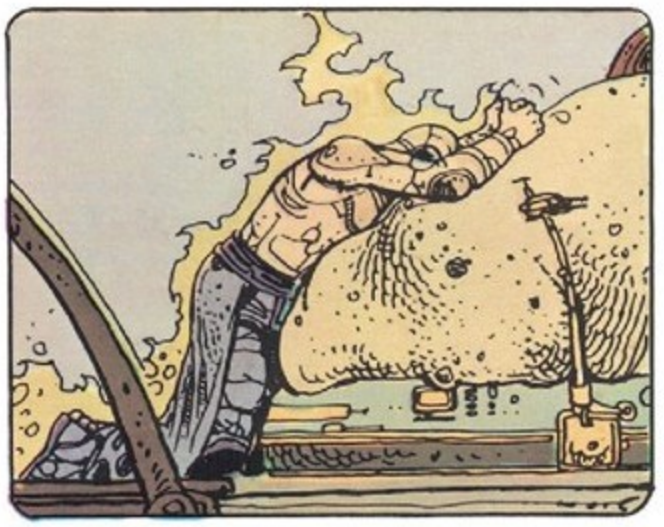


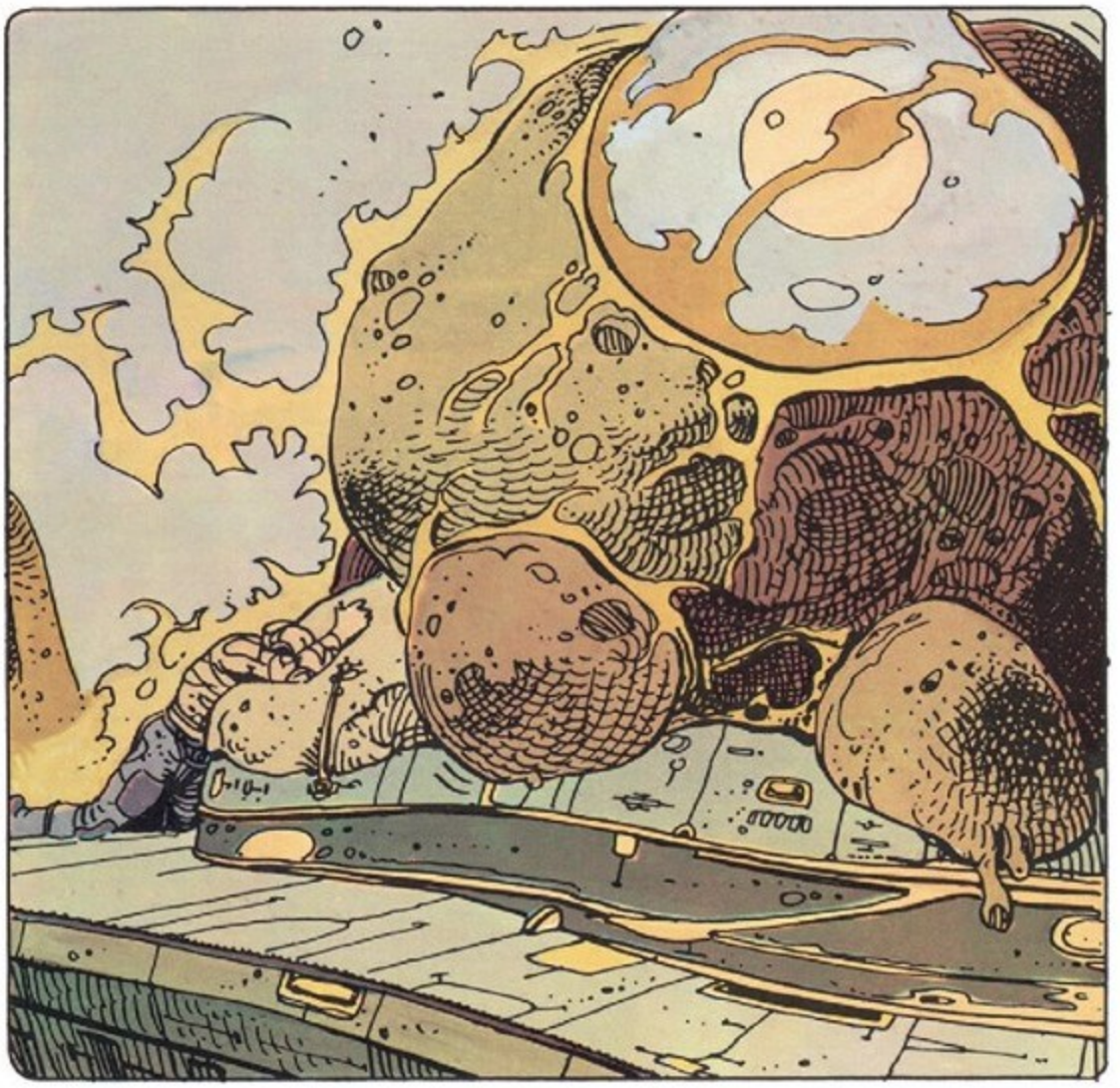












THEN, ONCE IT "LANDS"...

... IT WILL SPLIT APART...

...THEN WE SEND OUT A SIGNAL FOR SOMEONE TO COME AND PICK US UP...

EXTERMINATOR 17

AND WHAT ABOUT ALL THE PEOPLE ON BOARD?

CLETON

THEY'LL HAVE THE EMERGENCY CAPSULES... ENOUGH AIR FOR SIX DAYS... AND A GOOD CHANCE OF BEING PICKED UP BEFORE THEN...

ANYWAY, IT'S EITHER THEM OR YOUR ANDROIDS...







End of **Part 1.** Conclusion in next issue.

FORGING THE METAL
THE INCONCEIVABLE UNKNOWNS OF THE COSMOS

Like a child afraid of the deep shadows in their room at night, it is easy to fear the vast, cold, unimaginable void of space. Who knows what could be out there?! And much like that child staring at the dark corner of their room or the inky blackness of a partially opened closet door, it is most natural, perhaps even evolutionarily mandated, that we fill those unknown spaces with our most tightly held fears and anxieties. Better to go in prepared for the worst than to be caught in flat-footed optimism. How we treat the things we do not know or cannot understand reveals a great deal about who we are as people, so stories of the exploration of space have also always been mirrors held up to help us understand what our interior lives are projecting into that universe-sized blank canvas.

This need not always be fear-based. **Zoeami's** story "Neighbors" [p. 186] gives us an extremely clever and surprising twist on the genre of strange alien encounters. Nearly silent and with gorgeous, expressive art, the story follows two explorers as they wander through large, abandoned ruins whose architecture feels human, but whose inhabiting fauna seem undeniably otherworldly. While their space suits give them the look of a scientific expedition, they refer to one of the creatures they meet as a "demon." The world around them is fluid, strange, and ever-changing. The biggest change, however, resides in the small placement of a hand in the final panel, completely shifting reality yet again and crafting a moment that is pure comics artistry. Zoeami, a Japanese artist who humorously refers to himself as a "baby crab," turns our fear of the unknown on its head, shifting it into a message of strange connections instead.

The connection made in **Karl Johnsson's** staggeringly beautiful yet unsettling story "Thanatus" [p. 195] takes on a more mythic quality. A young woman travels in a spaceship to find Thanatos, son of Nyx. If it's been a while since you've studied Greek mythology, Nyx is the goddess of night, so powerful even Zeus feared her. The children of Nyx are all the embodiments of generally negative or fearsome concepts, such as entropy or inevitability (Moros), reckoning (Nemesis), and fate (the Moirai). Thanatos is, of course, death. One can only imagine how cheery the conversations around the breakfast table were. Why exactly this woman is searching for death is unclear, or even what death means to her. It could be the complete cessation of bodily life, but that kind of death is all around her. She moves past it. We do get snippets of information. She misses her life and her friends, but she is escaping an unnamed shame. She feels the goddess has disowned her, and this appeal to Nyx's son is a further breaking of that bond. Her eventual encounter with Thanatos is, let's say, unusual. It is, perhaps, less a shuffling off of the mortal coil and more a Buddhistic annihilation of the self. Or perhaps not. Like any good myth, it is more open to the exploration of the reader than simply prescriptive. Regardless, it is of note that Johnsson has set this piece in space. The search for some mythic destruction of the self, for a truth so far beyond us it requires us to disappear, can only be found far beyond the frontiers of the known.

Virginie Augustin's "Red" [p. 206] takes a less mythic and more classic science fiction approach to space exploration, but, similar to Zoeami's "Neighbors," approaches the story from a novel perspective. On a barren planet some men in spacesuits beat a hasty retreat. Something is coming, something that could change everything. To say what that is gives the game away, but Augustin's sly and engaging art reminds us that frontiers can be approached from all directions and exploration is a game open to all.



But while the game of exploration may be open to all, not everyone who plays wins. **Marc Caro,** a pillar of the original *Metal Hurlant* and partner with Jean-Pierre Jeunet on *Delicatessen* and *City of Lost Children,* knows how to marry the ethereal and the grotesque, making **Jorg de Vos** his perfect partner for "Exolove" [p. 213], the story of an astronaut approaching a monolith that evokes *2001: A Space Odyssey,* but while that unknowable space structure led to a psychedelic journey of the mind, this particular formation leads to a nightmare journey involving an entirely different organ. Humans are drawn to explore out of deep desires, be they for fame, fortune, knowledge, or power. But there are many desires within the heart (and, again...*other organs*) of humanity, and who knows what strange and dangerous frontiers the outer reaches of space hold for those deep, dark yearnings?

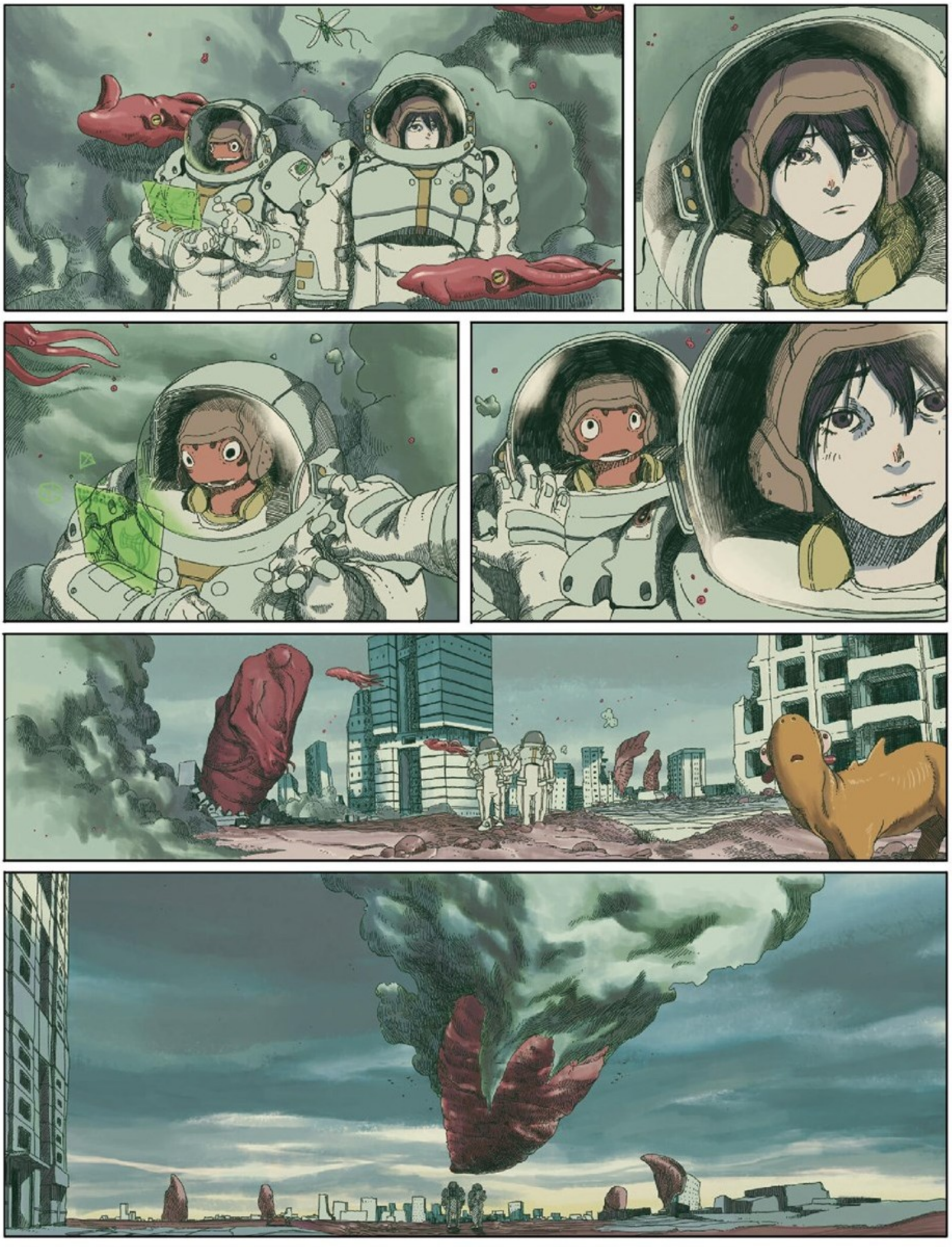
The child sits in their bed, covers drawn over their head, shaking with fear. There is something out there. Maybe it is in the closet. Maybe under the bed. Behind the dresser. But there is something out there. They know it. And even though they are scared, they are compelled to lift the blanket up and peer out. They cannot help themselves. And neither can we, all grown up, as we peer out past the blanket of our atmosphere and into the dark corners of our universe.

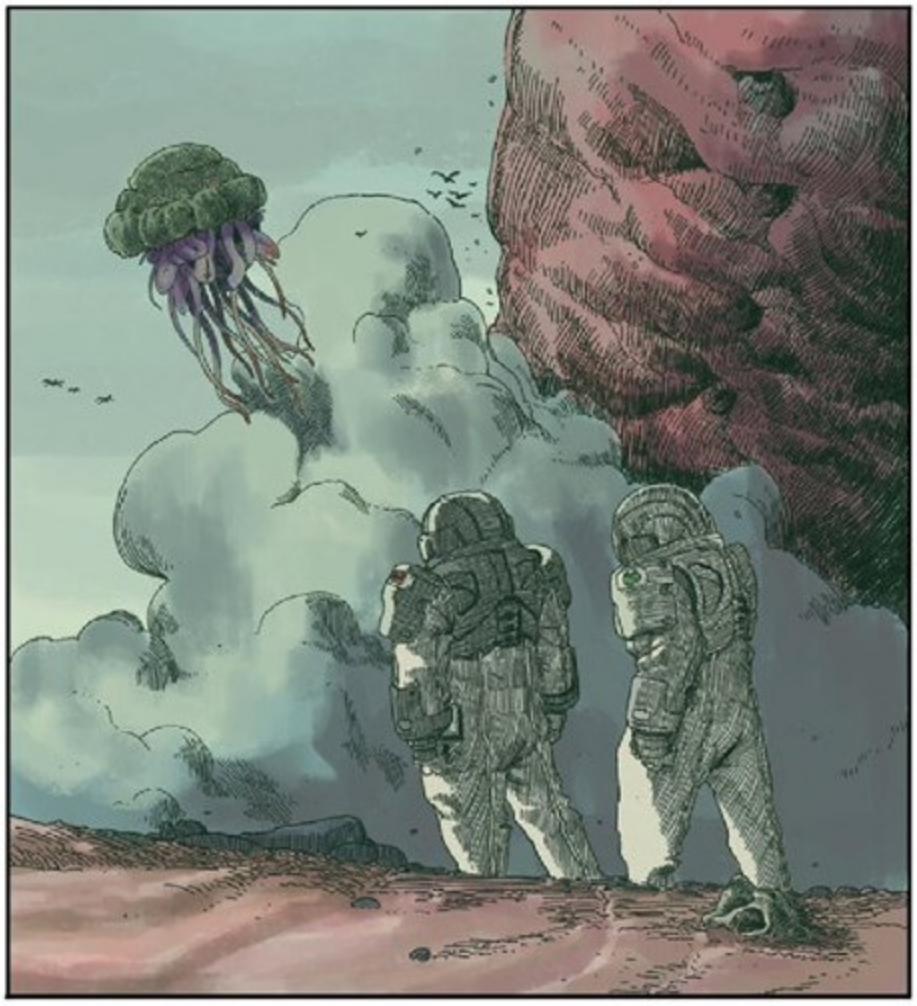
—**Jake Thomas**



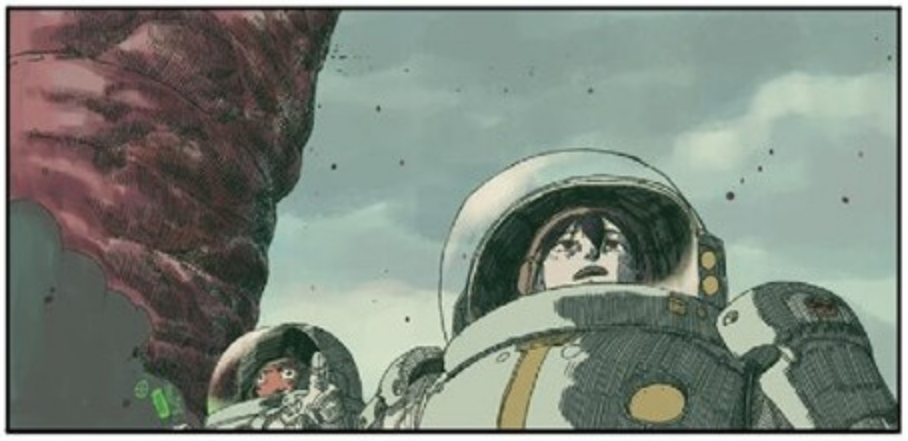
Illustration by Zoeami

NEIGHBORS by Zoeami











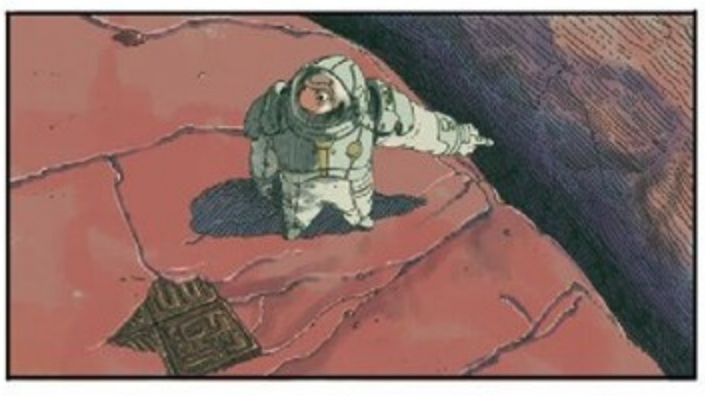


























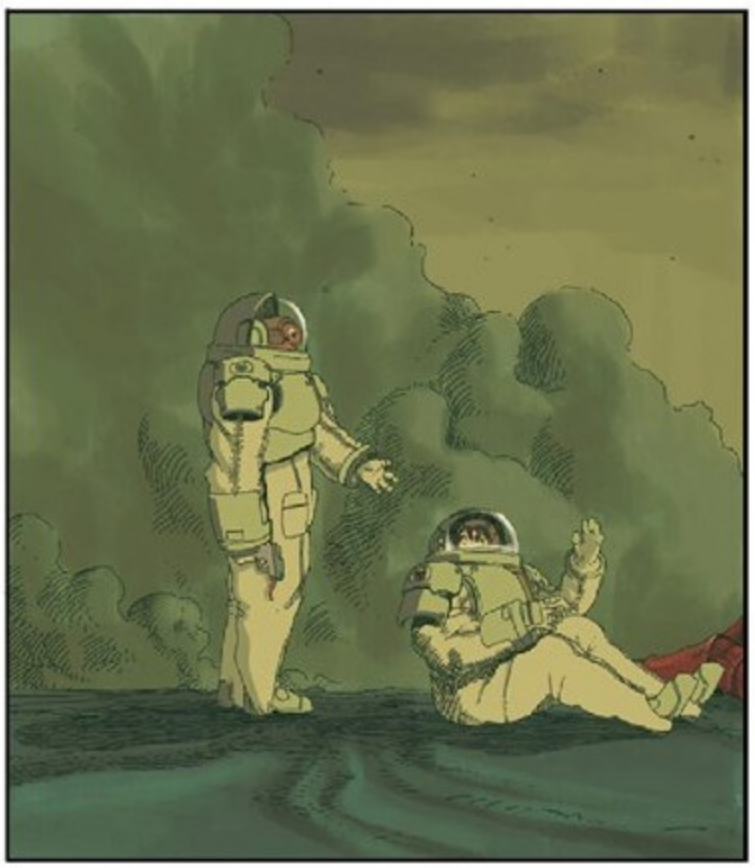






























BUT...WHAT HAPPENED? WHERE ARE WE NOW?

THIS IS SUPER WEIRD!!!

HUH... WHAT'S THIS?

IT LOOKS LIKE SOME SORT OF WINDOW...

I'VE GOT A FEELING THERE'S SOMEONE ON THE OTHER SIDE.... ANOTHER DEMON?

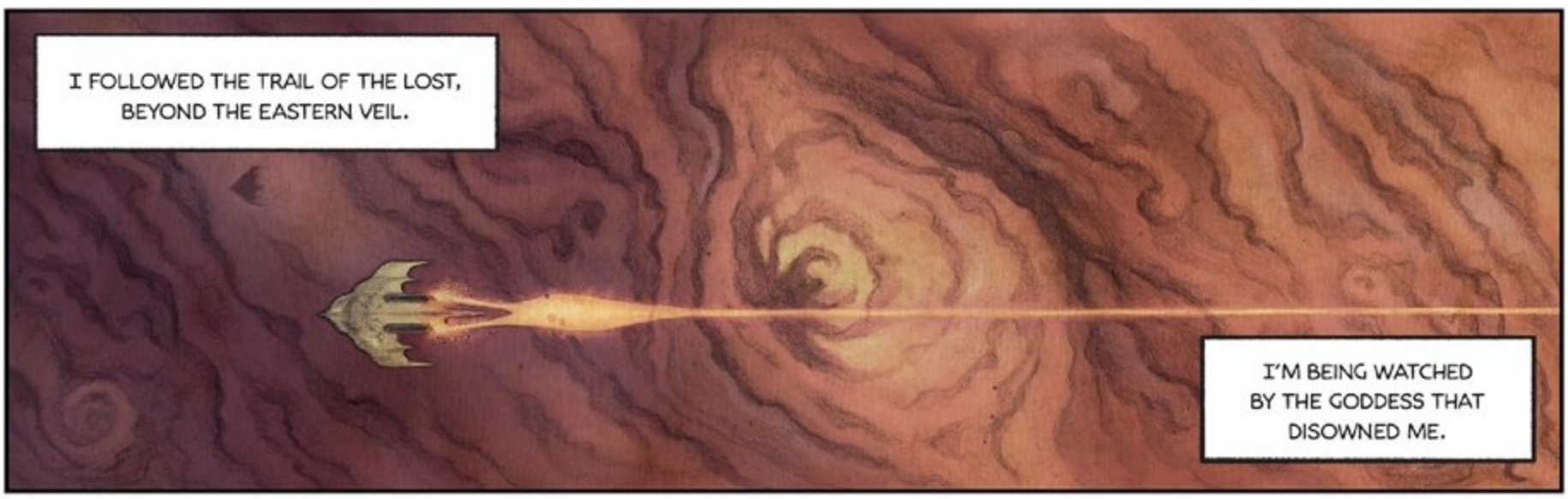
LET'S TAKE A CLOSER LOOK!

I SEE A ...HUGE FACE?!

OH!!

THANATUS by Karl Johnsson









I DESIRE HIM, NO NEED TO DENY IT ANY LONGER. I'M LOST, AND FOR THE LOST AND ABANDONED, HE HAS MADE A PROMISE. I WILL GO TO HIM.

MY SHIP READS MY NEURONS, CREATES FLICKERING MEMORIES MADE OF LIGHT TO KEEP ME COMPANY.

THE BRIGHT LIGHT OF WORSHIP.

THE STEADY LIGHT OF COMMUNE.

THE ECLIPSE OF EXILE.

I'M BORING HER.

SHE LIFTS HER FINGER...

...AND FLICKS ME OUT OF ORBIT.


I'M HERE.
NYX. SHE TOSSED ME
TO HIM, LIKE AN OLD RAG.
MAYBE IT'S
THE PRICE TO PAY?
FOR TURNING
AGAINST
THE MOTHER,
FOR NEEDING
THE UNLOVED SON.
NO RETURN.

I NEED A VIEWPOINT. THERE ARE NO MAPS OF THIS PLACE.

ONLY TALES OF THE WRETCHES WHO COME HERE.

WRETCHES LIKE ME...

A THOUSAND SHIPS FROM A THOUSAND WORLDS. SOME OF THEM ARE HUGE, BUT THEY ALL CARRIED A SINGLE TRAVELER. I CALL THAT VANITY!

"SINNERS WILL SIN."

CAN YOU SIN WHEN YOU ARE ALONE IN THE DESERT? I THINK I CAN.

LOOKS LIKE THIS IS THE WAY...

FOLLOWING THE FOOTSTEPS OF THE OTHER SUITORS.

I USED TO YEARN FOR A SHIP LIKE THIS. I WANTED TO BE AN ANGEL WITH A FLAMING SWORD.

IT FEELS FAMILIAR TO FOLLOW THE TRAIL. WHERE DID THEY GO? THIS LONELINESS...LIKE A DARK WELL IN MY CHEST.

SHE IS ABOVE, EVER WATCHING. I MISS THE BITCH, CURSE ME, I DO!

MY BRETHREN. THEY DIED IN SHAME, A THOUSAND YEARS APART,
BUT TOGETHER NOW. SOME OF THESE OLD ALIENS HAVE BONES THAT NEVER WITHER.

THEY SHOULD SEND
AN ANTHROPOLOGIST HERE
OR SOMETHING.

THEN I MEET THE PILOT.

A REGULAR
PALADIN!

A HERO!

YES, A CADAVER.
BUT STILL?

ONCE UPON A
TIME, I WOULD
ONLY HAVE
DREAMED OF
TOUCHING YOU.

YOUR LAST WORD WAS HER NAME. CAN WE BE FORGIVEN?

I THINK I'LL STAY WITH YOU.

ANOTHER TRAVELER WILL FIND US IN THE FAR FUTURE. "WHAT A BEAUTIFUL COUPLE!"

WE COULD START A FAMILY.

THEN... A MOONCHILD COMES TO MY RESCUE. REMINDS ME...

...THAT I WON'T SETTLE FOR A KNIGHT...

...ONLY A PRINCE!

ALL HER CHILDREN ARE WATCHING ME CROSS.

I DON'T THINK THEY WANT THEIR LITTLE BROTHER TO BE ALONE.

THE DESERT IS FILLED WITH LIGHTS.

I AM SURROUNDED, ABOVE AND BELOW.

I REACH THE WELL.

HE RISES.

THANATUS.

GODS, YOU'RE BEAUTIFUL!

EYES LIKE BLACK HOLES, AND THE SMELL OF HEAVY METAL.

A KISS THAT SWALLOWS DISTANT STARS.

SHE IS WATCHING. I DON'T CARE.

I'M IN ECLIPSE.


I NEVER PLANNED FOR ANYTHING AFTER I HAD YOU...




ALRIGHT THEN...





RED by Virginie Augustin







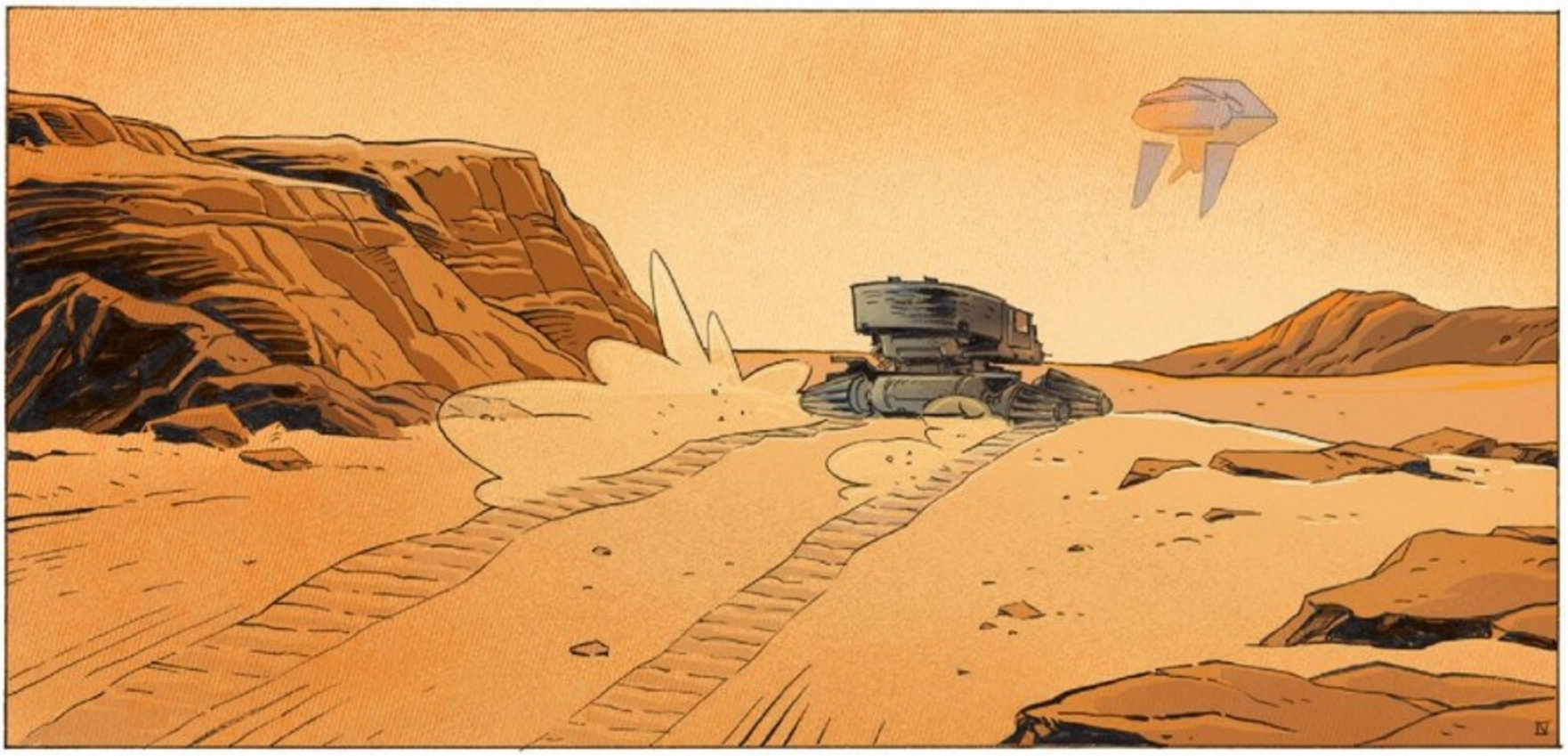












PERSEVERANCE
MISSION —
FEBRUARY 18, 2021.

NASA

MARS
2020

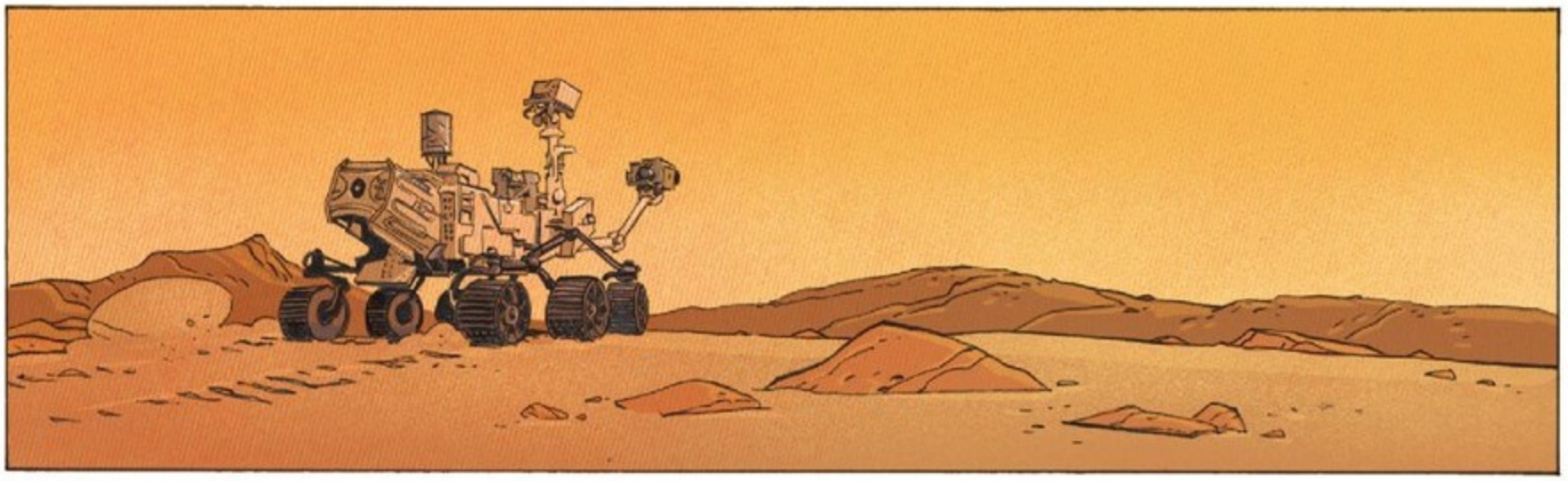
JPL











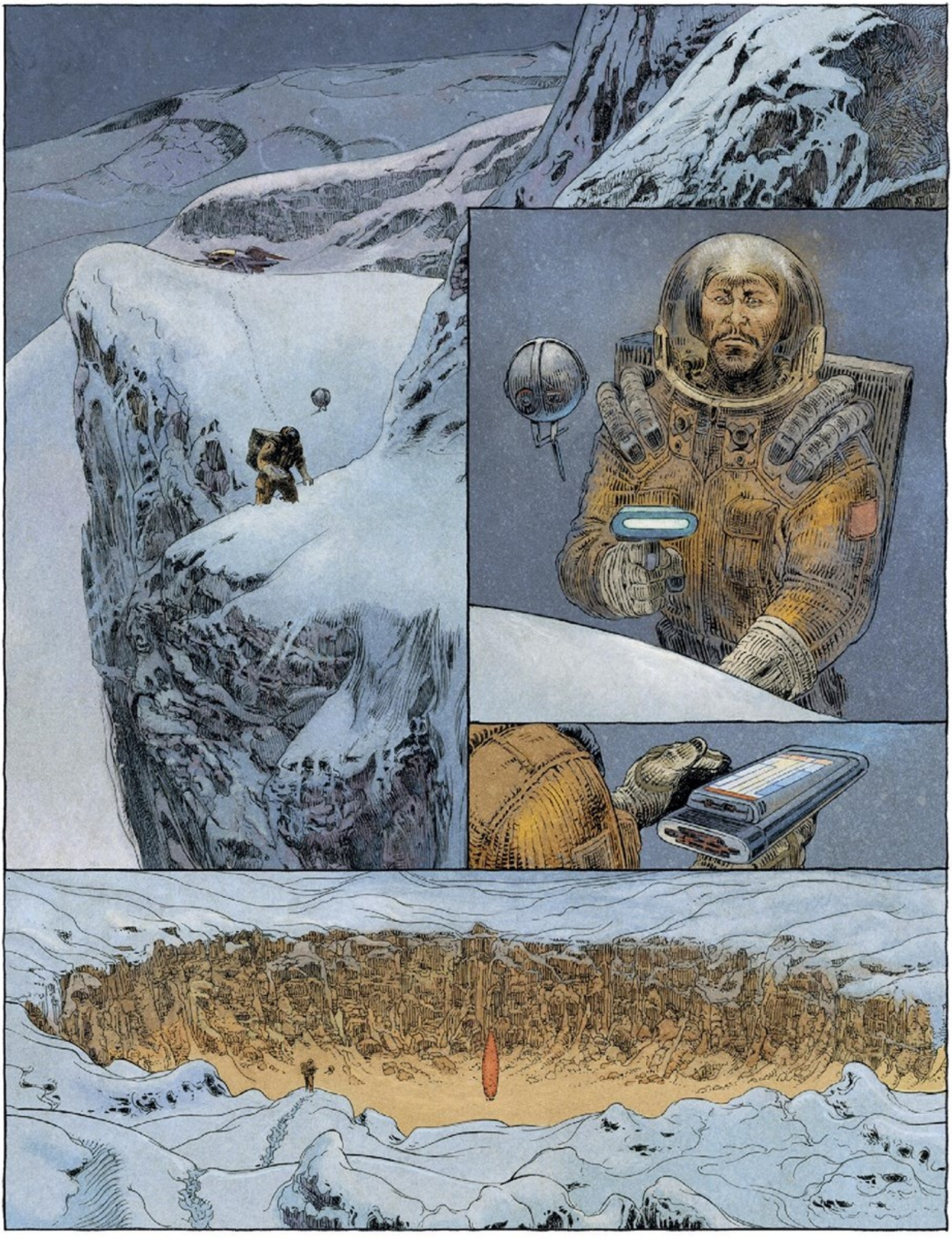


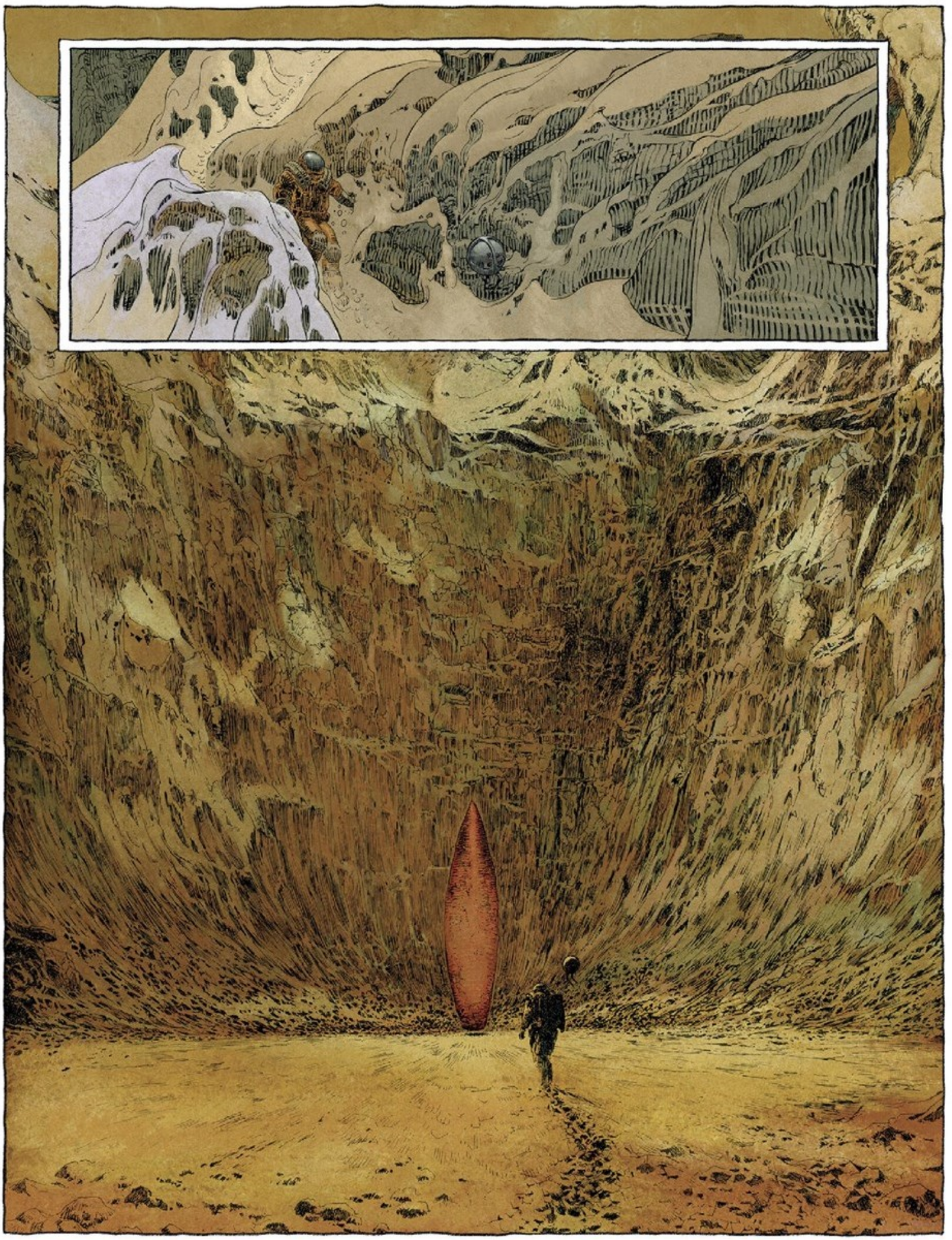
I AM CONFIDENT MAN WILL WALK ON THE RED PLANET ONE DAY.

FOR ME, THAT'S JUST THE FIRST STEP. AFTER THAT, THE PATHWAY TO THE STARS WILL OPEN UP BEFORE THEM.*

*RAY BRADBURY

EXOLOVE Story by **Marc Caro** and Art by **Jorg de Vos**

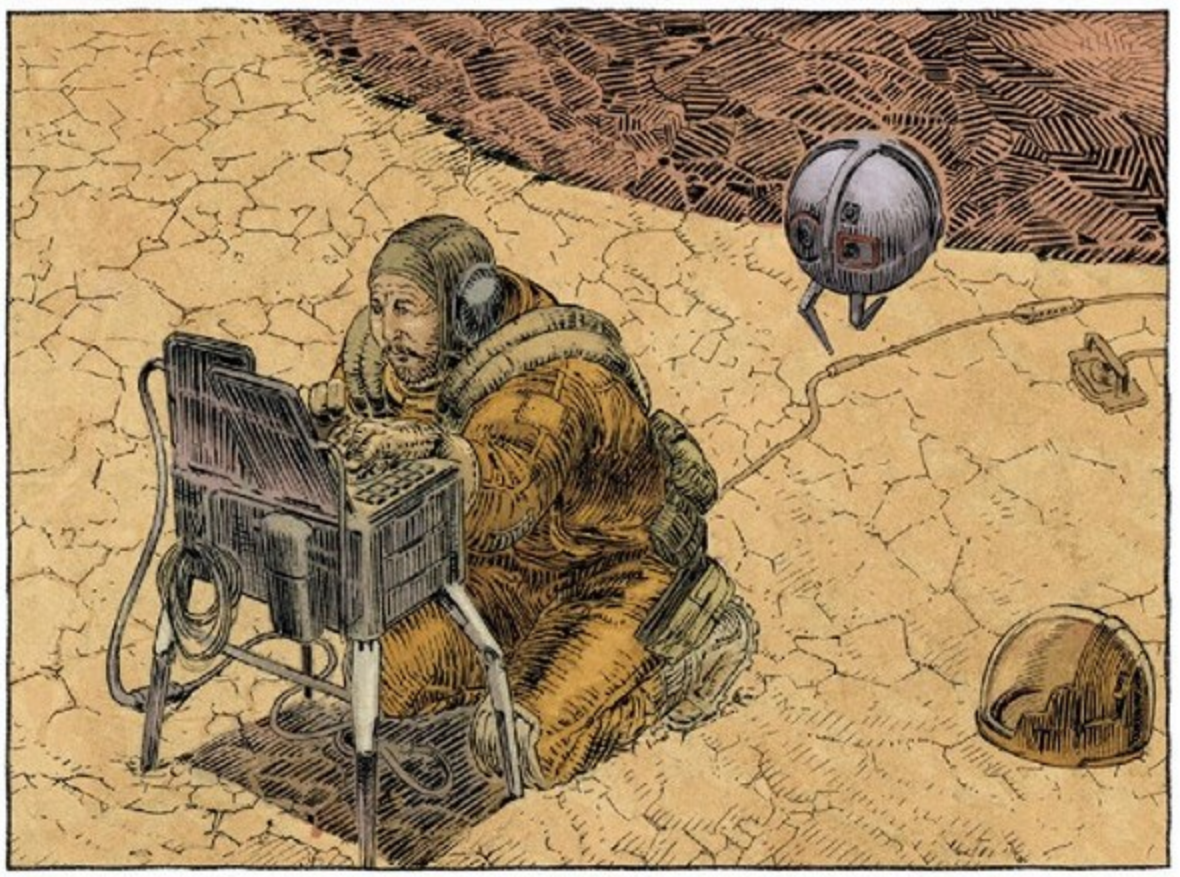




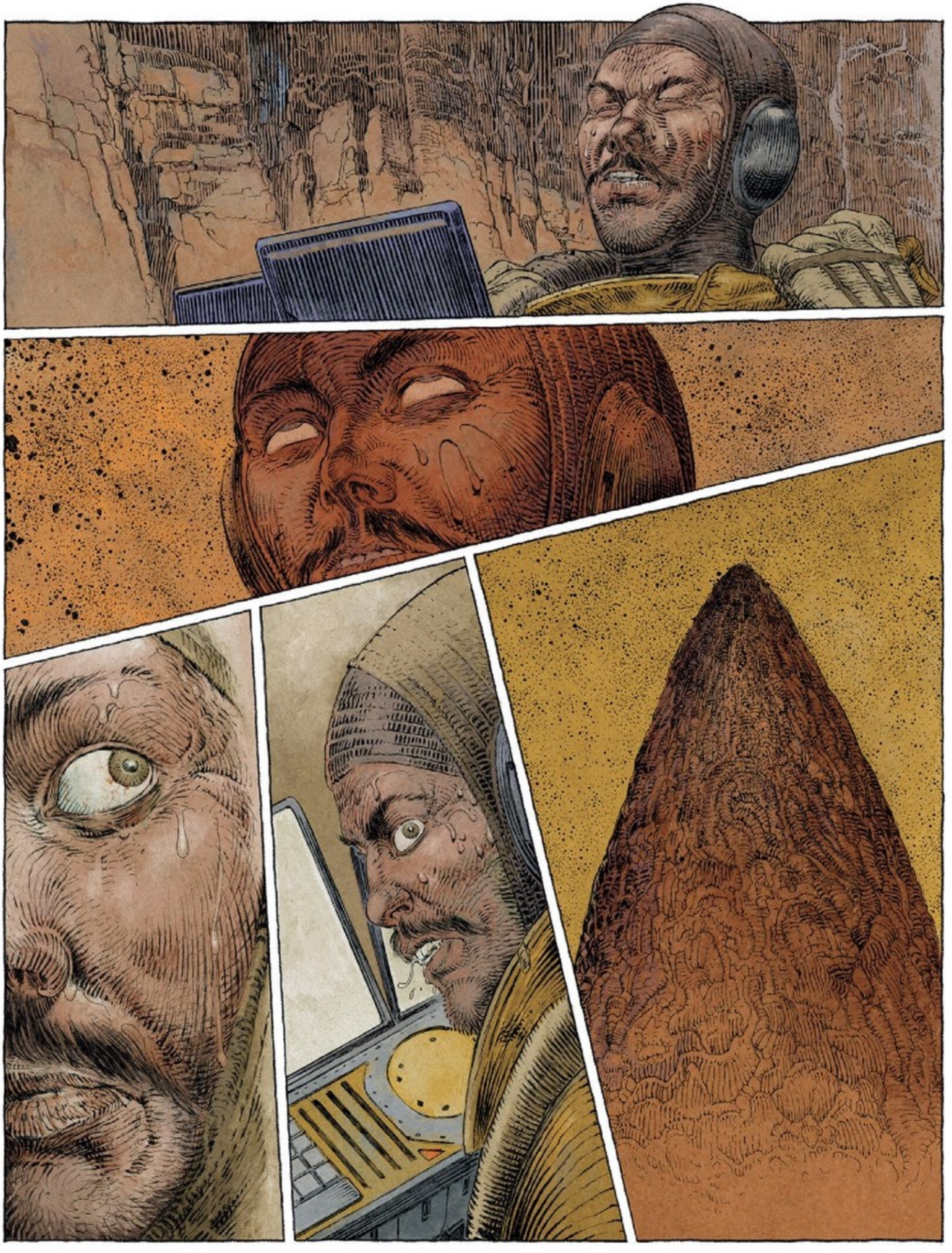


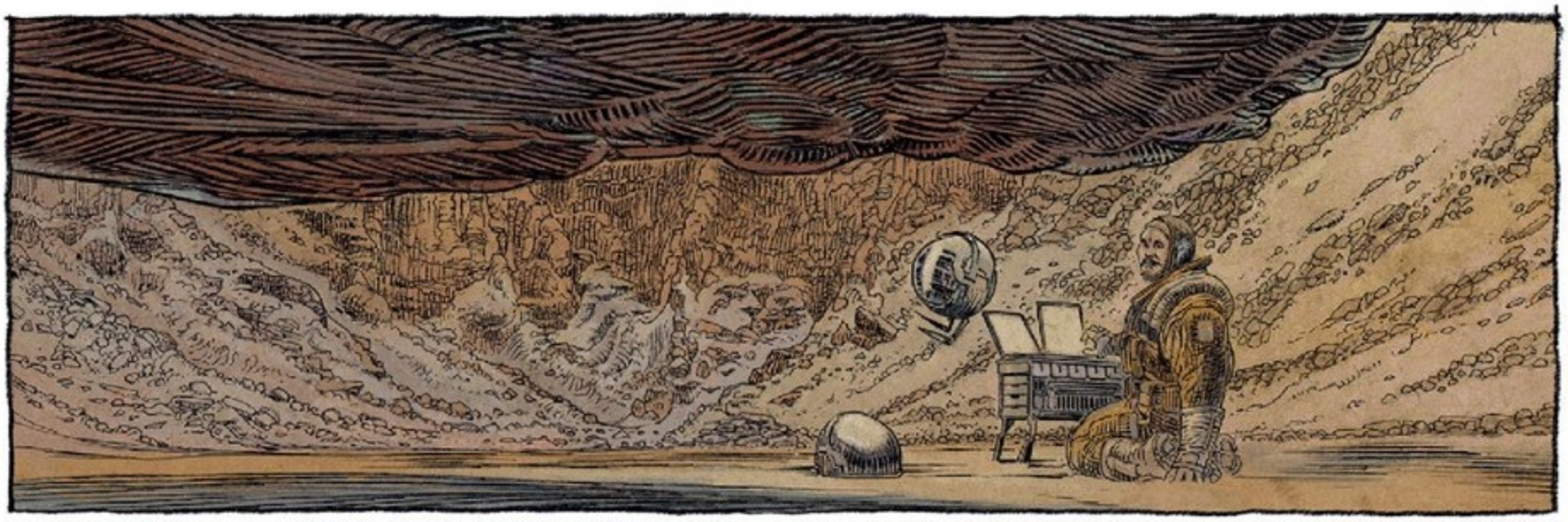




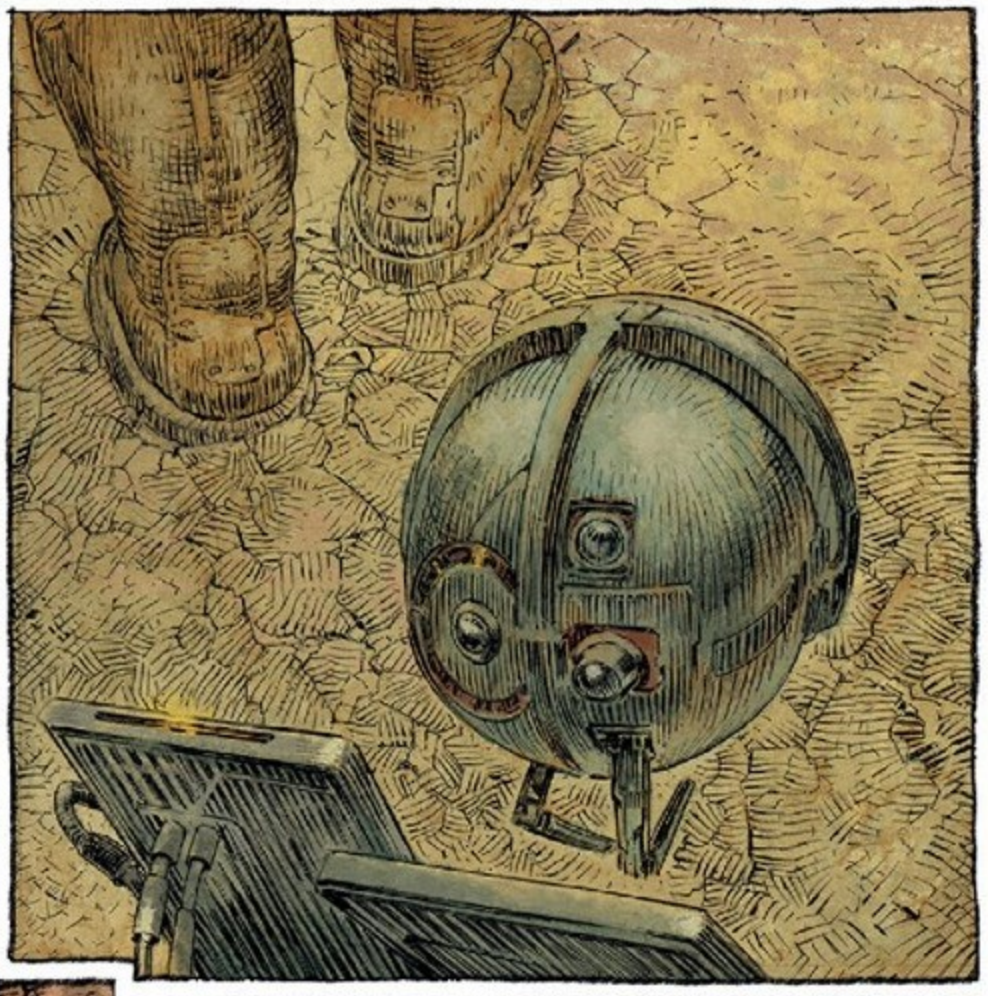






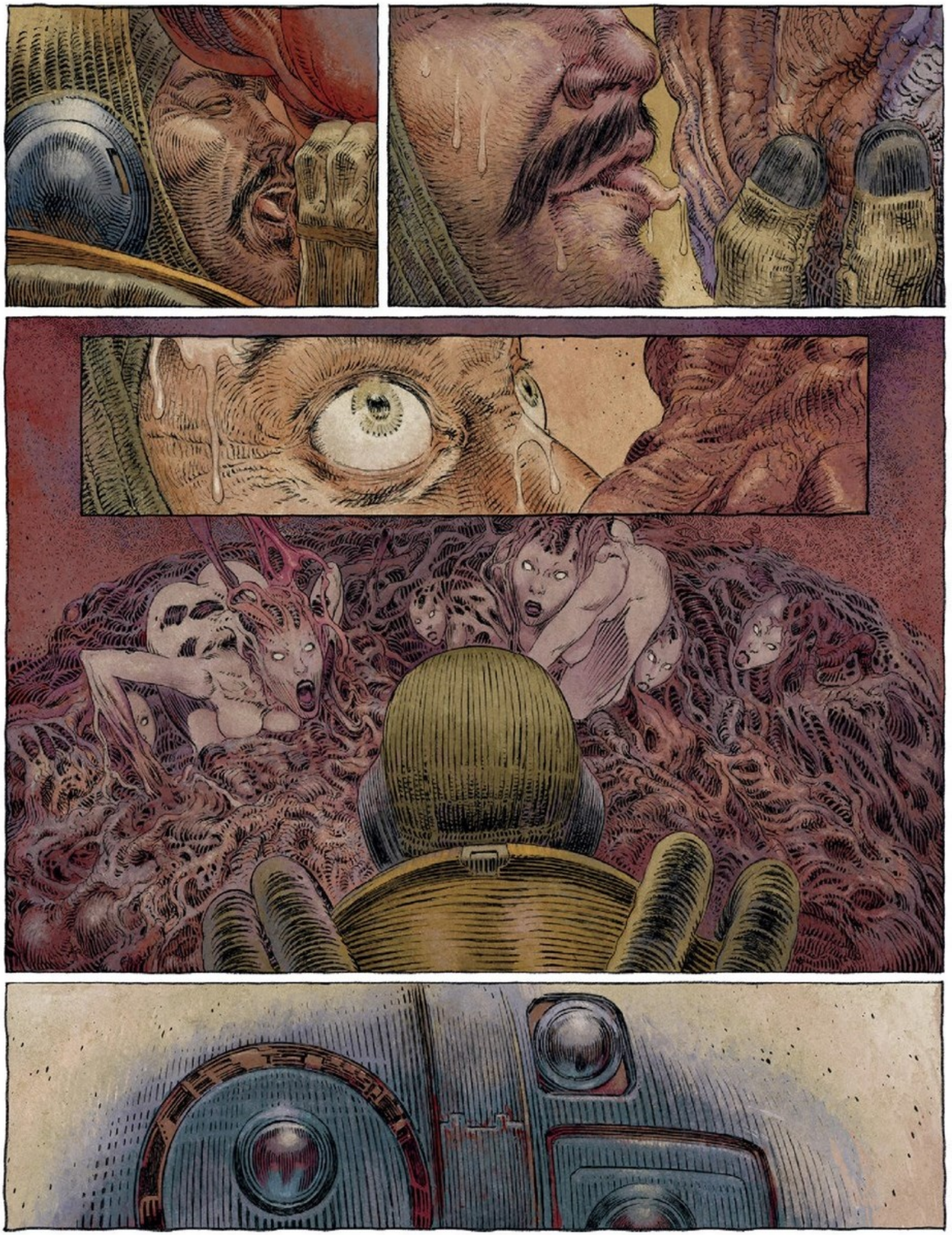
























TOOK THE BAIT.

MONOLITH CALMED DOWN...

READY TO APPROACH...

COPY.

PLACE WIRES...

...ACTIVATE...

...START COUNTDOWN...

GET THE HELL OUT OF THERE!!!

MISSION ACCOMPLISHED.

START SELECTION PROCEDURE: NEW BAIT.

COPY.

FORGING THE METAL

THERE'S NOTHING NEW UNDER THE SUN. UNDER PROXIMA CENTAURI, HOWEVER...

When we make art about the exploration of space, much of it is projection. We assume, to one degree or another, what is out there will resemble what we have here, or we use the possibility of what's out there as a funhouse mirror to distort and gain a new perspective on our terrestrial life. Sometimes, though, it's fun to use the concept of space to just let our creativity run wild. The infinite cosmos allows us the freedom to explore our own infinite imaginations. Which is to say...let's get weird.

Daria Schmitt, an artist with an impeccable ability to turn everyday animals into surreal absurdities in books like *The Monstrous Dreams of Mr. Providence,* changes her focus from Lovecraftian eldritch horrors to cosmic cuteness with a cutting edge in her story "The Vessel" [p. 225]. A spacefarer is tempted to explore a large body of water on a planet of tall pink grass, but all is not as it seems. Outside of feeling like it's pulled straight from the brain of someone who stayed up too late reading '70s pulp sci-fi and watching internet videos, what does this story mean, what is it trying to say? Perhaps the more important question is, must it have a grand meaning at all? It is beautiful and strangely captivating, a story with its own mysterious allure that is easy to fall into, much like that strange pool on that distant heavenly landscape.

A drop of water at the end of Schmitt's story leads the eye directly into a dark, oppressive anti-sun hanging over the barren but spellbinding landscape of **Elie Huault's** story "SOS" [p. 232]. Like "The Vessel" this piece is also silent, pulling the reader into Huault's haunting visuals and letting them run the story. The reader is left to fill in the details of this bleak world. Who is this conical being? Why does it appear to be sweating? What is it doing with that suit? I have my thoughts, but I want to hear yours. It is a work that inspires interpretation and exploration from the viewers themselves. The piece was so compelling when it originally appeared in the French version of this new *Metal Hurlant* that it led to Huault creating a full book *Cometa,* that revisits this same world and explores it further.

If we're talking about unbridled artistic exploration and expression, we must, of course, discuss **Philippe Druillet.** One of the founders of Humanoids, Druillet is perhaps best known for his character Lone Sloane, a space traveler buffeted about by the hands of fate in a galactic picaresque that finds him bedeviled by pirates, the law, and even space gods. Druillet began Lone Sloane's adventures in his first ever tome, *Le Mystère Des Abimes.* From there Druillet would take Sloane with him to the magazine *Pilote* and then, eventually, *Metal Hurlant.* Sloane's first story in *Metal* was "Gaïl" [p. 243], the opening of which is reprinted here. In the story, which picks up from previous adventures, Sloane has been captured and is en route to the nightmarish prison, Saint Mary of the Angels. These first sixteen pages are pure atmosphere, with Druillet calling upon his love of pulp authors like H.P. Lovecraft to create staggeringly beautiful and complex constructs and innovative page layouts that melt the mind and all preconceptions of what comic book storytelling should be. Within these early story pages we only get a mere glimpse of Sloane, and we just barely make it to the dreaded Saint Mary of the Angels prison, but it truly is the journey that is the joy with this work. Take the time to pore over the art here, you will be rewarded. Look at the gorgeous frames drawn onto pages, turning the panels into artwork.

See how he hides design elements behind panels while incorporating them into the flow of the page. Take in the lighting, the textures...you don't just look at a Druillet page, you enter it. You can feel it, smell it, taste it. We have left narrative behind; this is an *experience.* The tactile world of Druillet gives way to the poetic musings of **Matthew Sheean,** who brings the same lyrical beauty of *Prophet* and *Island* to "The Remainder" [p. 259]. A philosophical contemplation on hurt and obsession, Sheean strips away all the typical accoutrements of the revenge story and boils it down to its purest essence: lost time. The world around this story is filled with wondrous details—strange creatures, glowing eyes, little bobblehead children. I believe there is context for them, the world feels beautifully real and whole and Sheean is obviously enjoying himself creating it, but he also builds the story like his character lives it, with a focus only on a comeuppance, one that is destined to fall apart. The wide, imaginative space setting makes the smallness of the protagonist's life all the more tragic.

With our final story, a final warning: Go, explore the dark recesses of space and your own imagination, but be aware, those adventures will rarely leave you unchanged. **Branko Jelinek's** "The Whole World Will Be Watching" [p. 266] is a classic sci-fi setup and payoff—a tale of danger, dread, and disgust as an astronaut returns from space to a much different homecoming than he was expecting. We hope you, too, have been transformed by your journey into space with us this issue. Let us know your thoughts by sending an email to TheScream@metalhurlant.com.

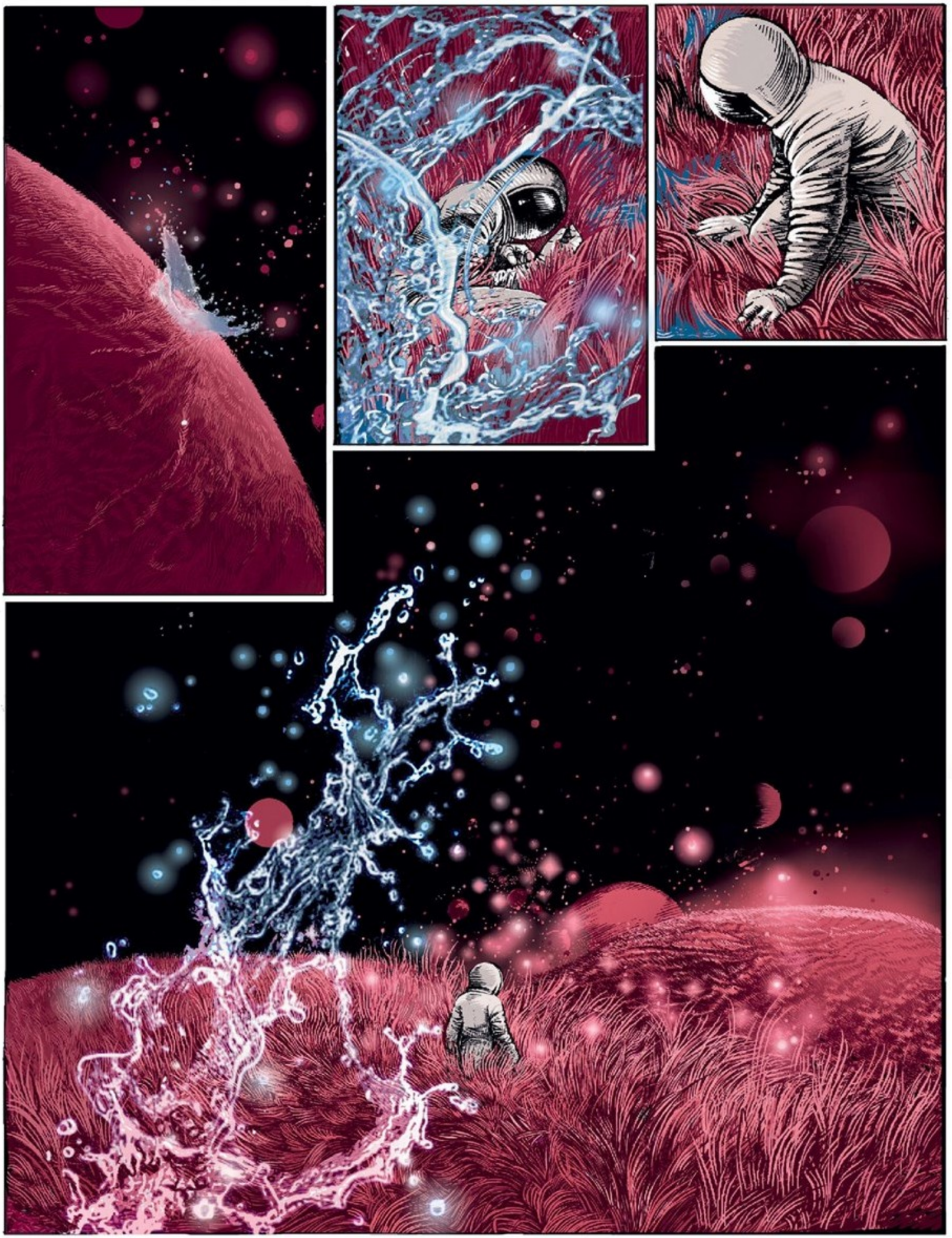
Until next time, travelers.

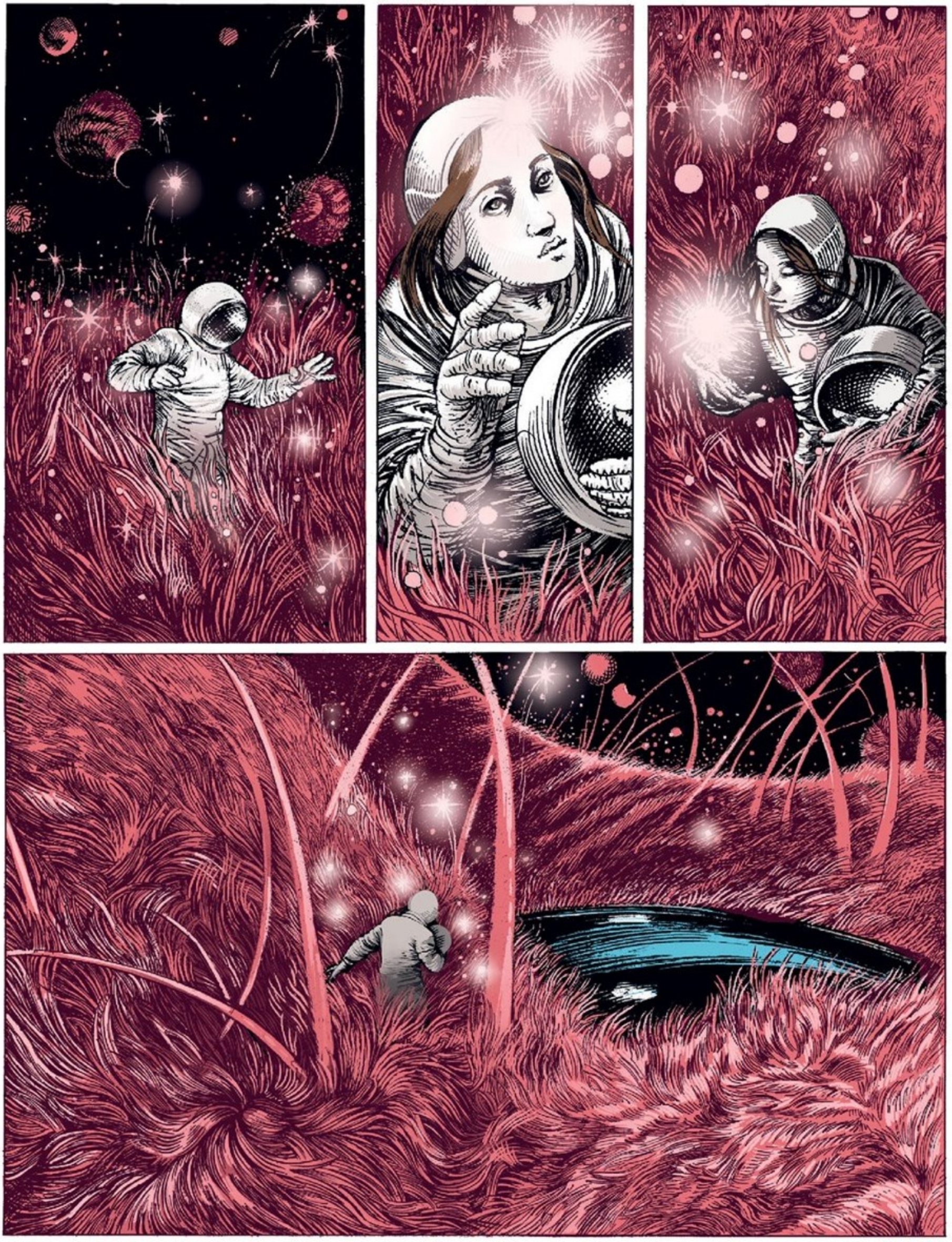
—Jake Thomas

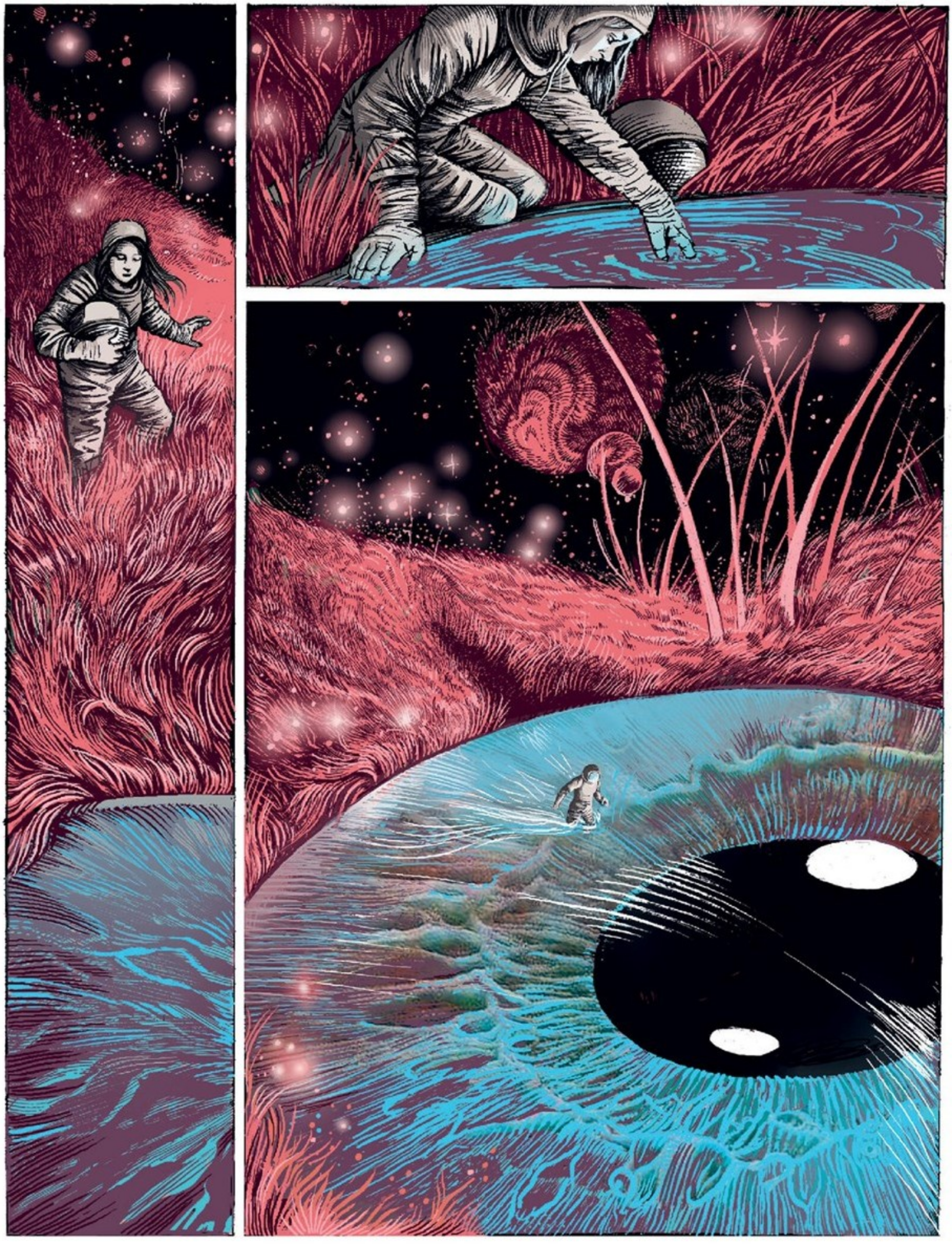


Illustration by Daria Schmitt

THE VESSEL by Daria Schmitt





















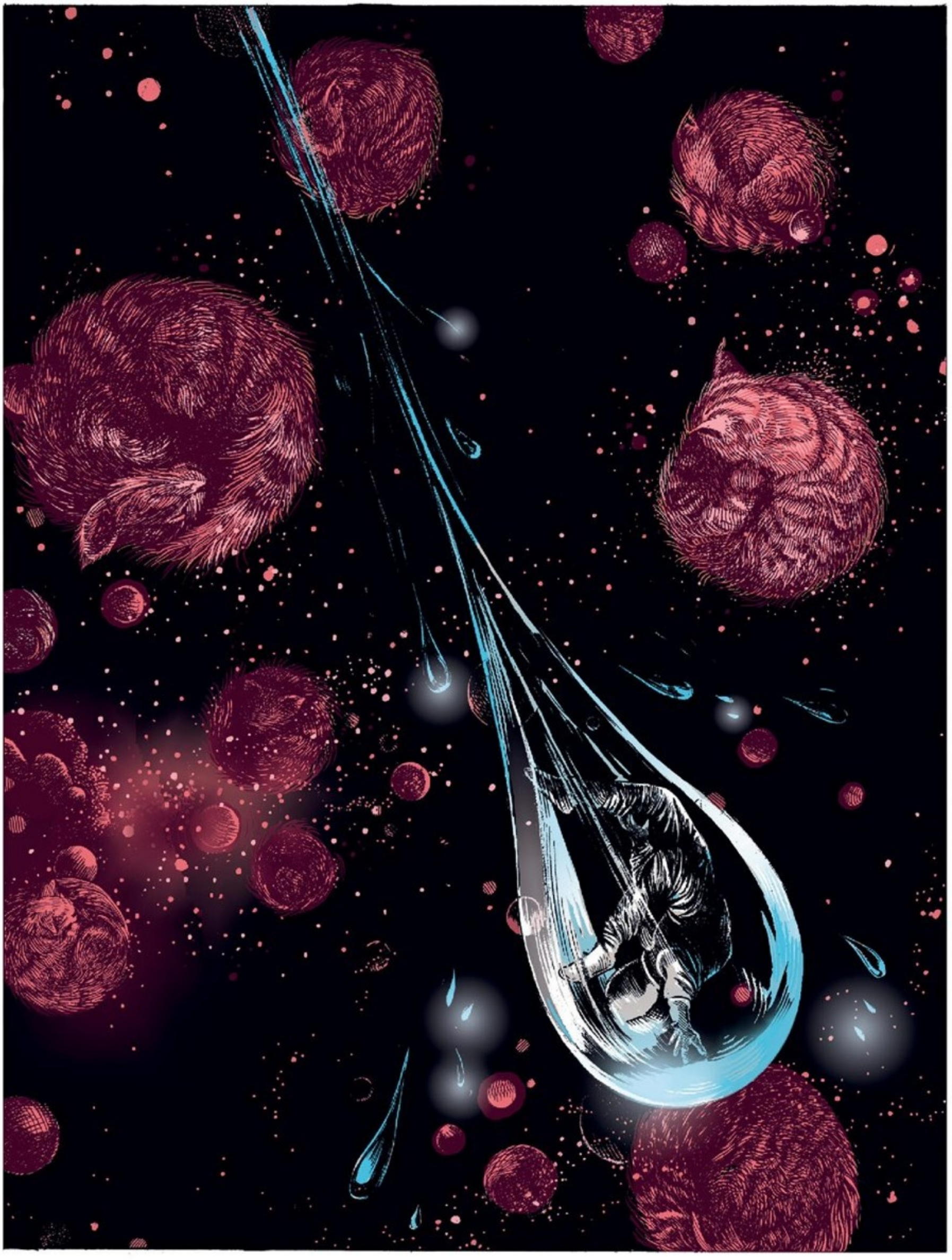




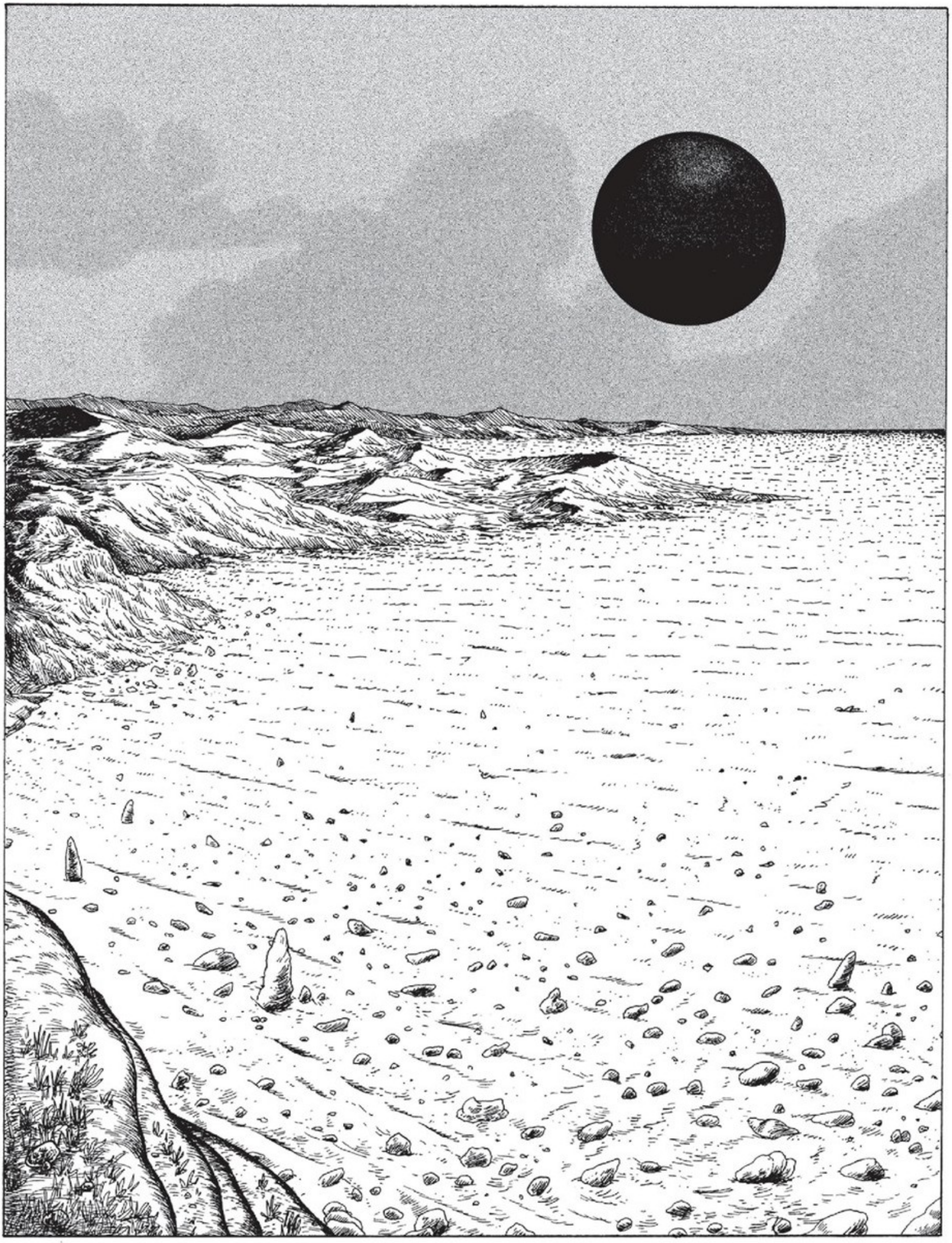


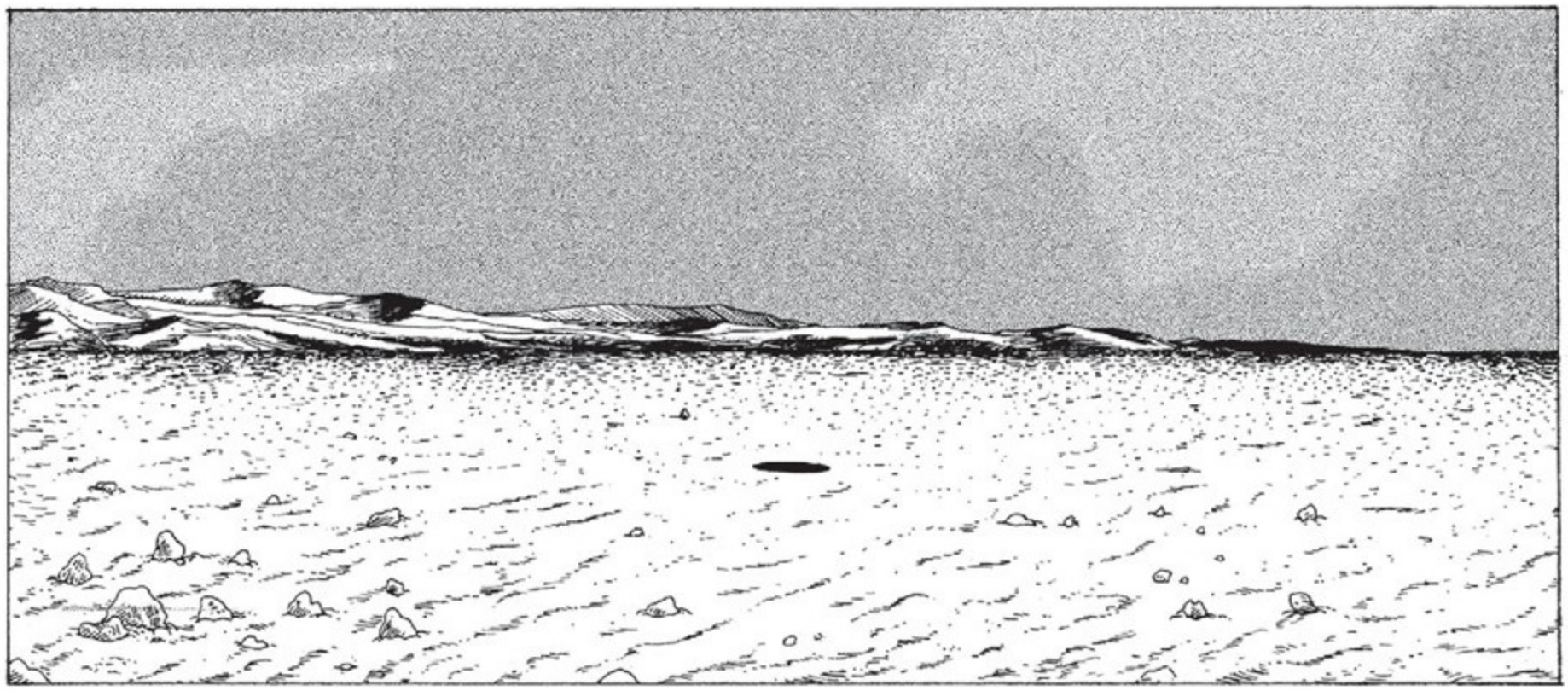


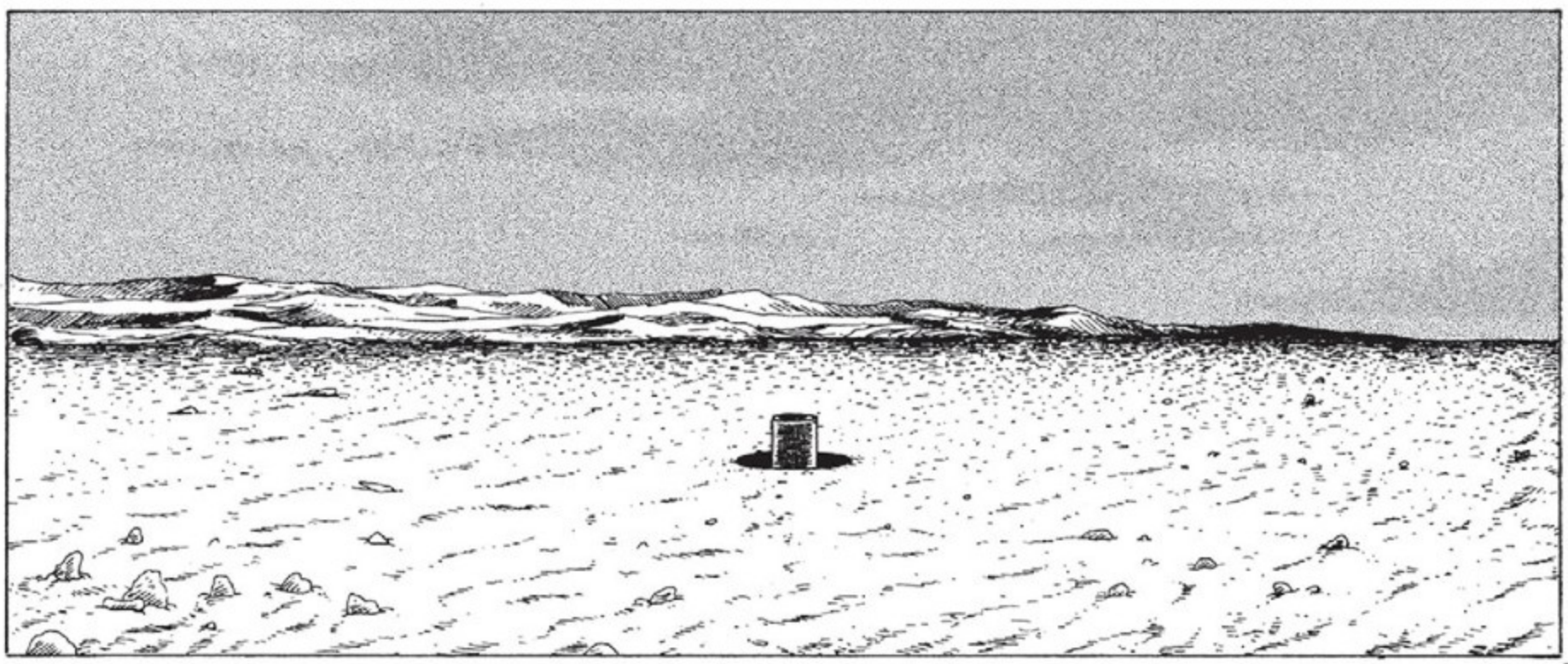


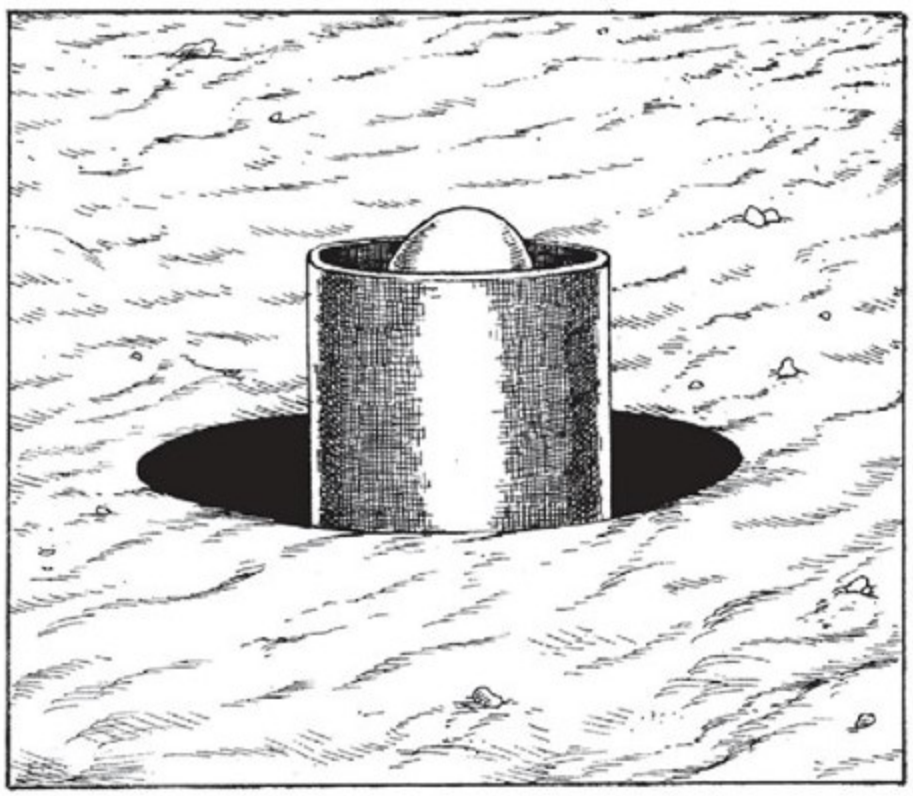


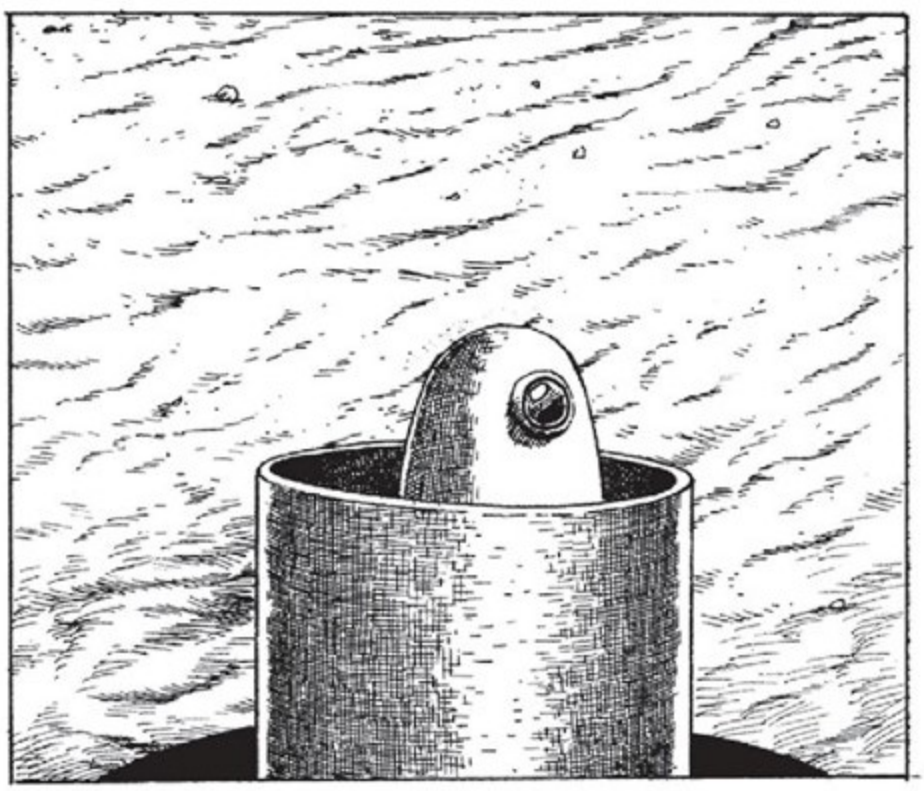
SOS by Elie Huault

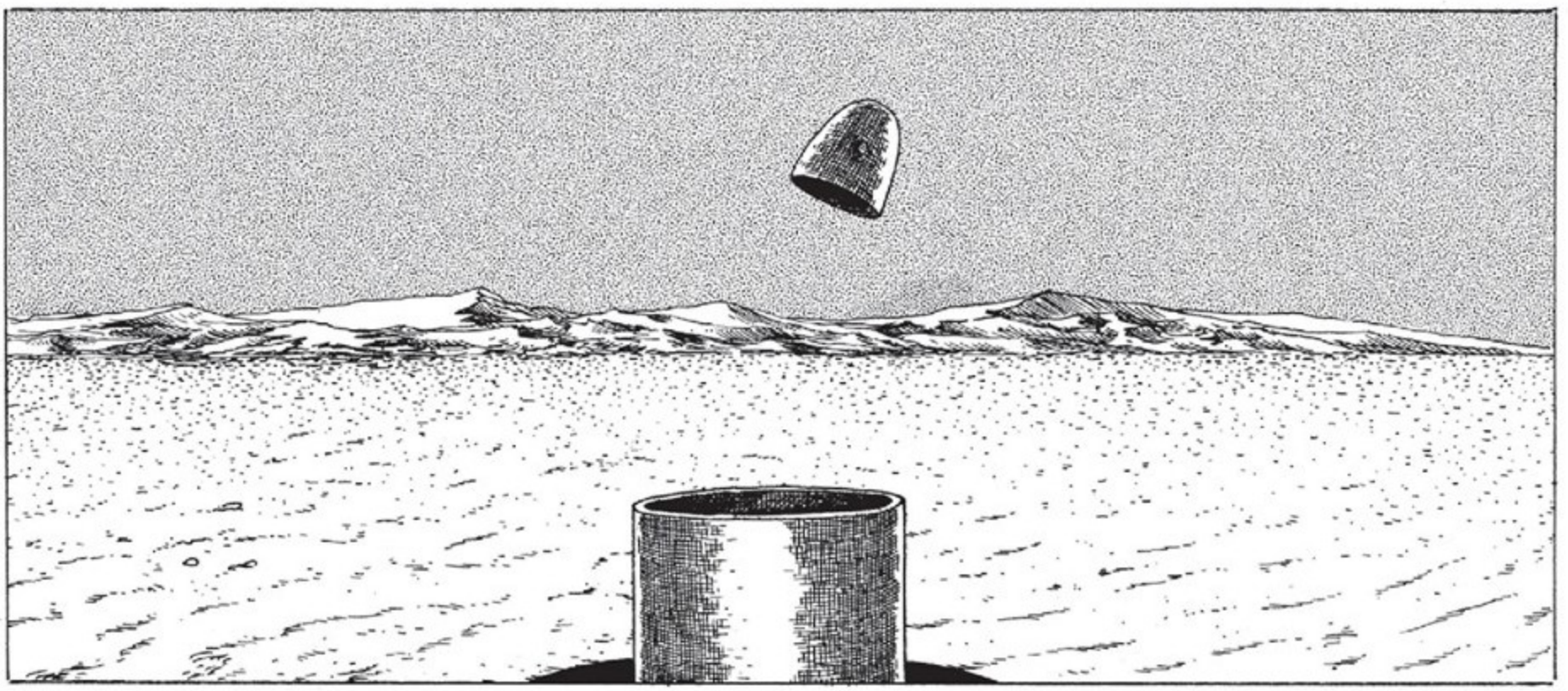


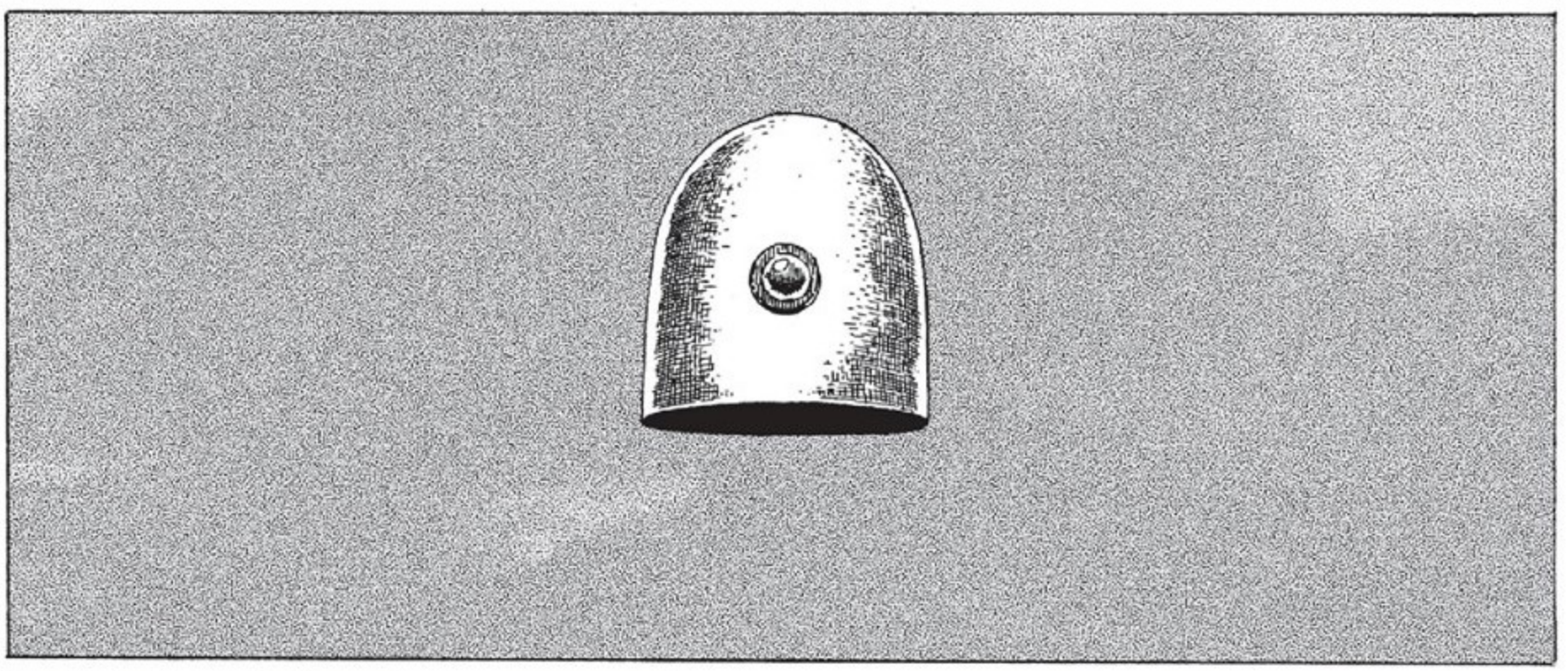


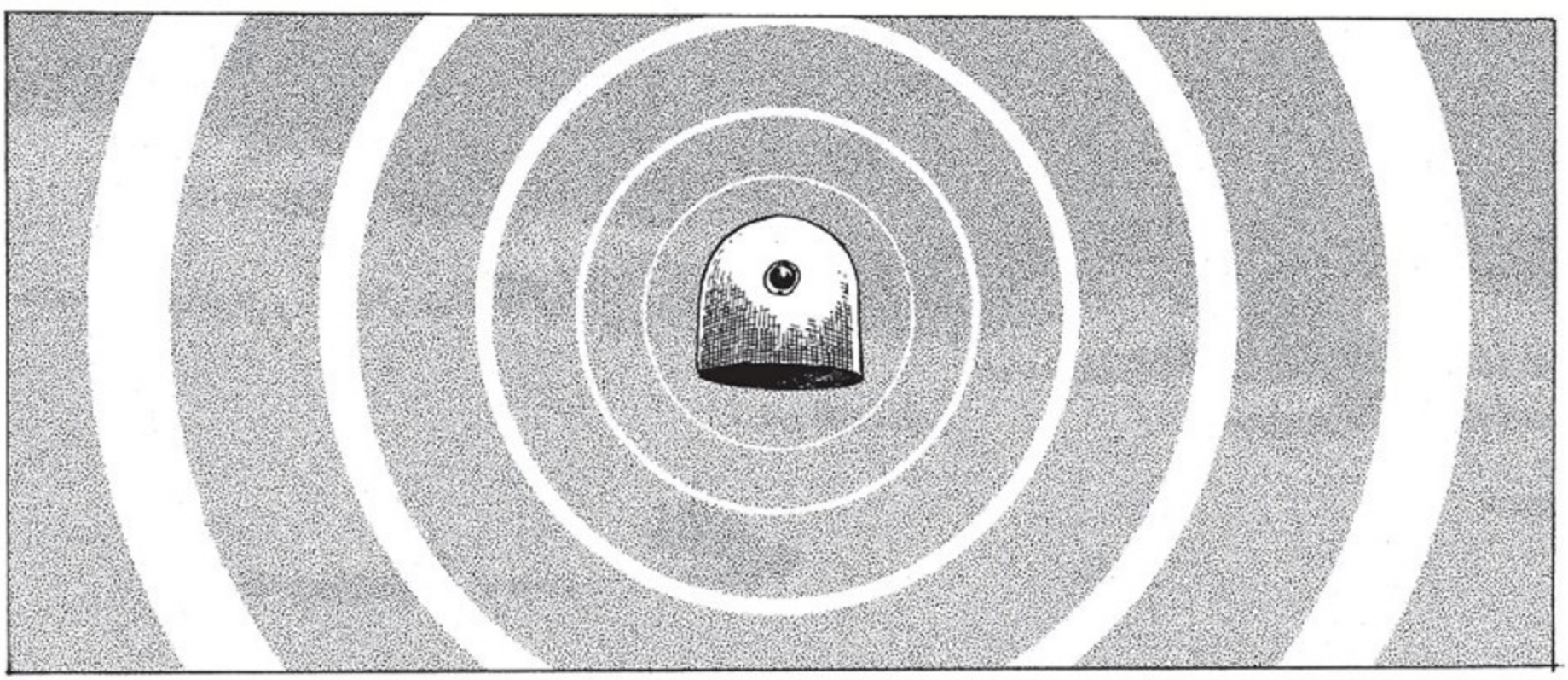


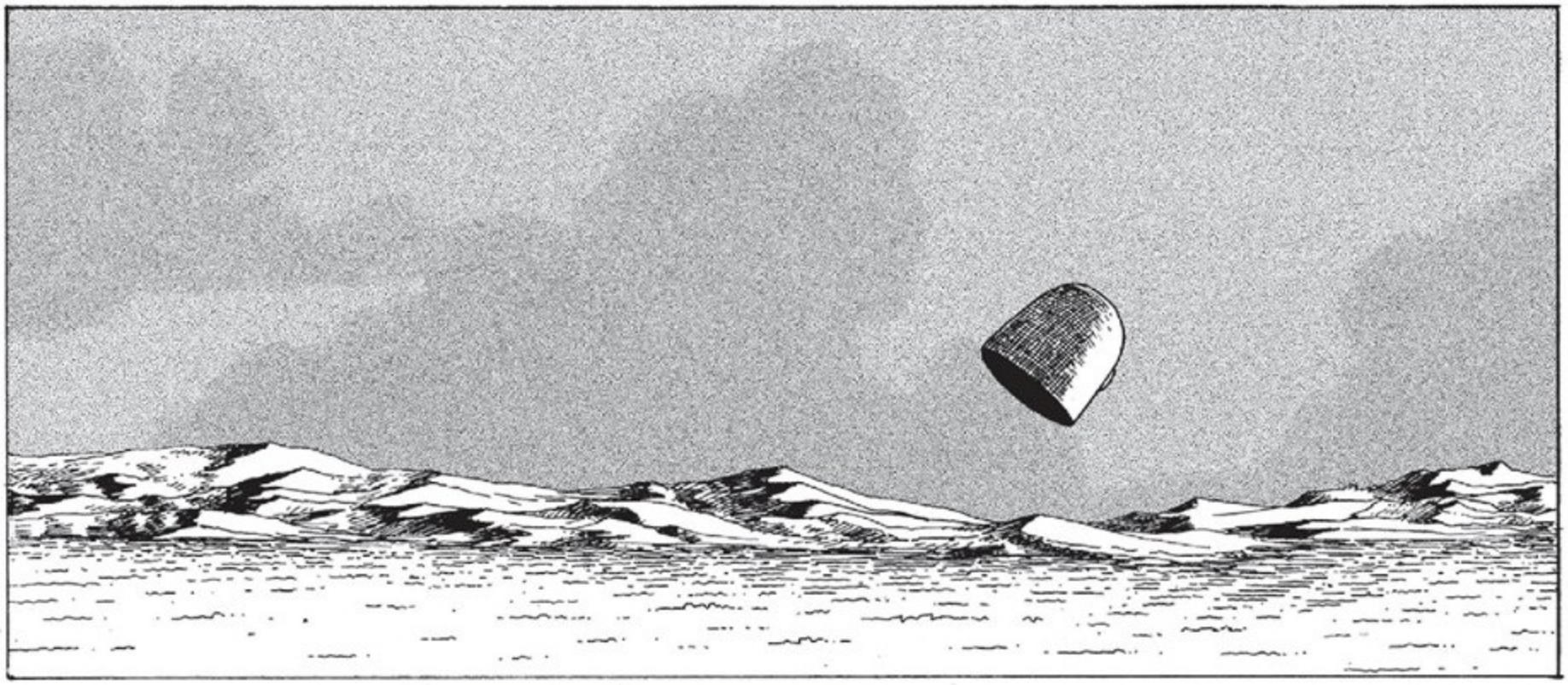


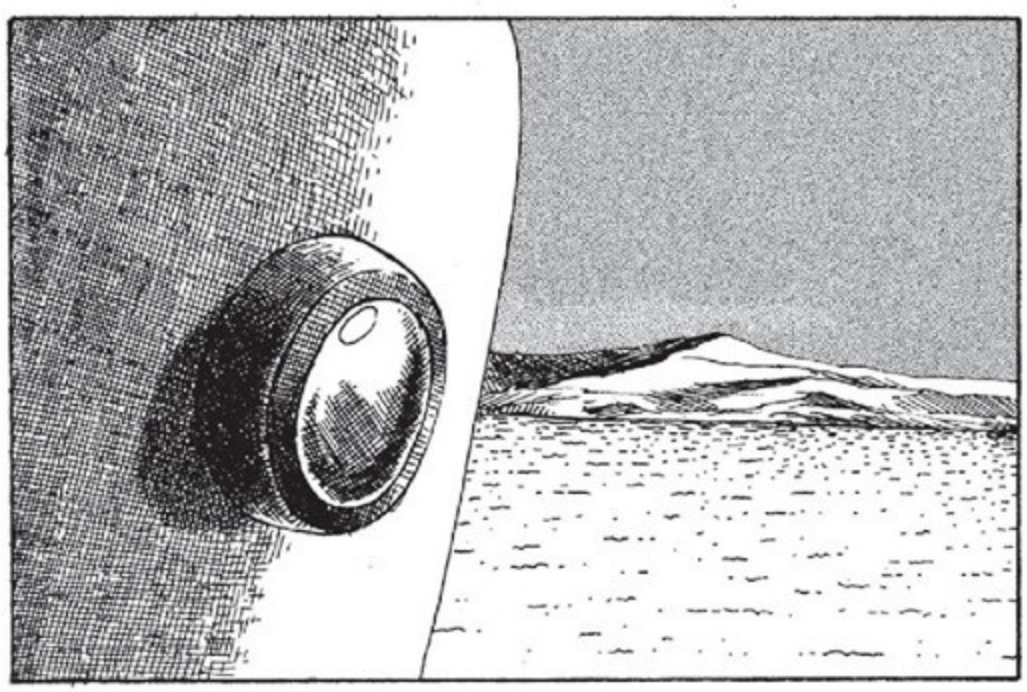


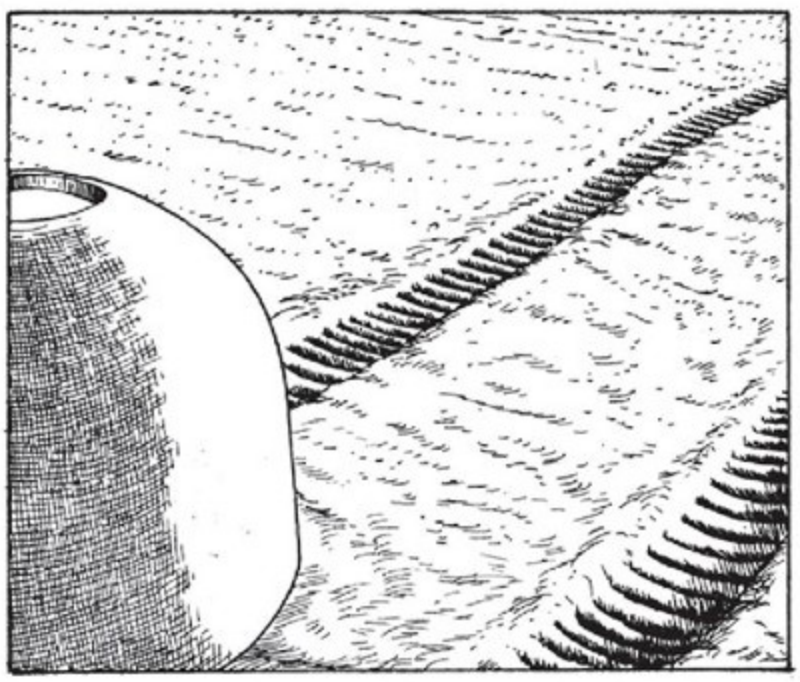


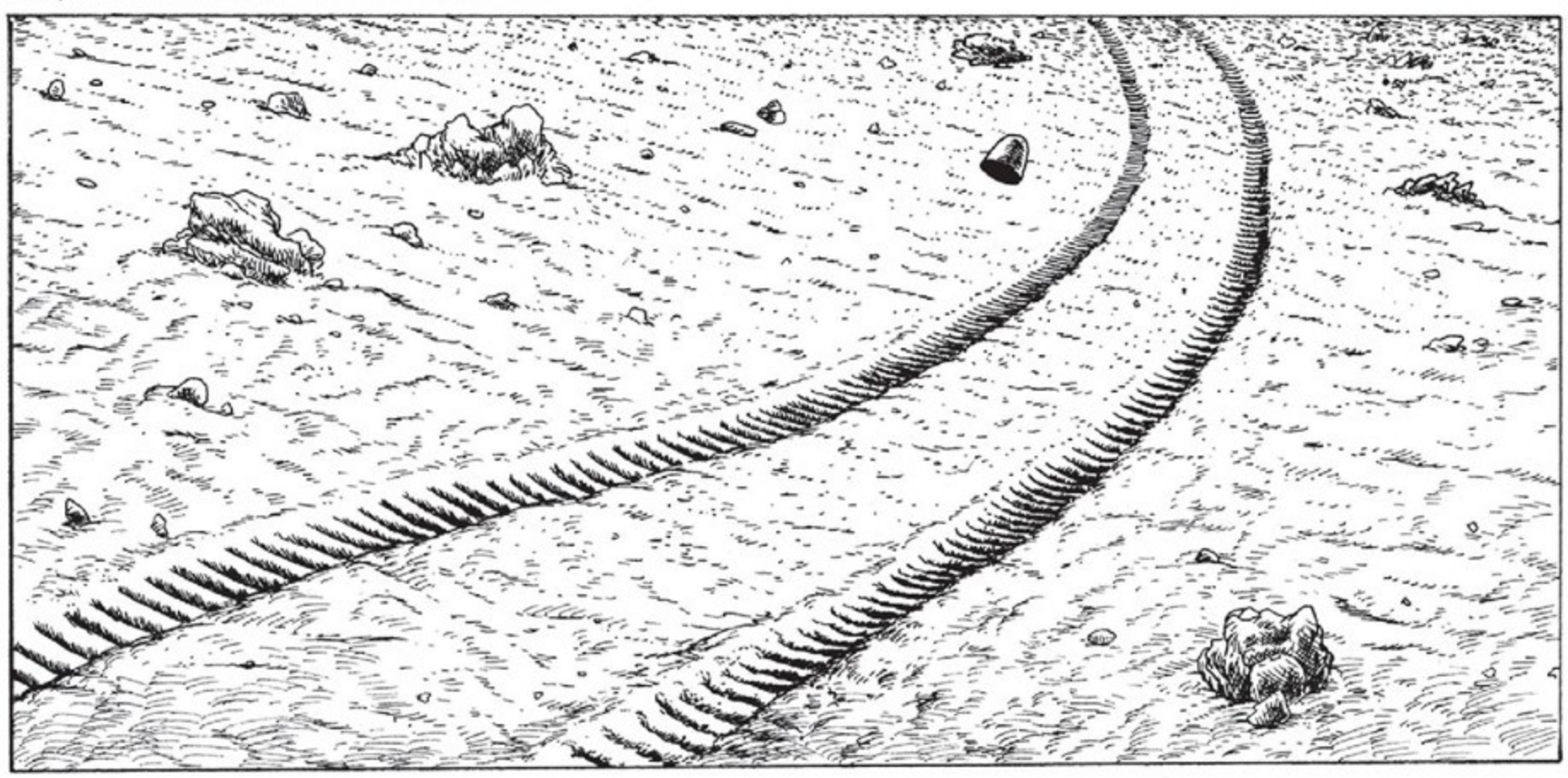


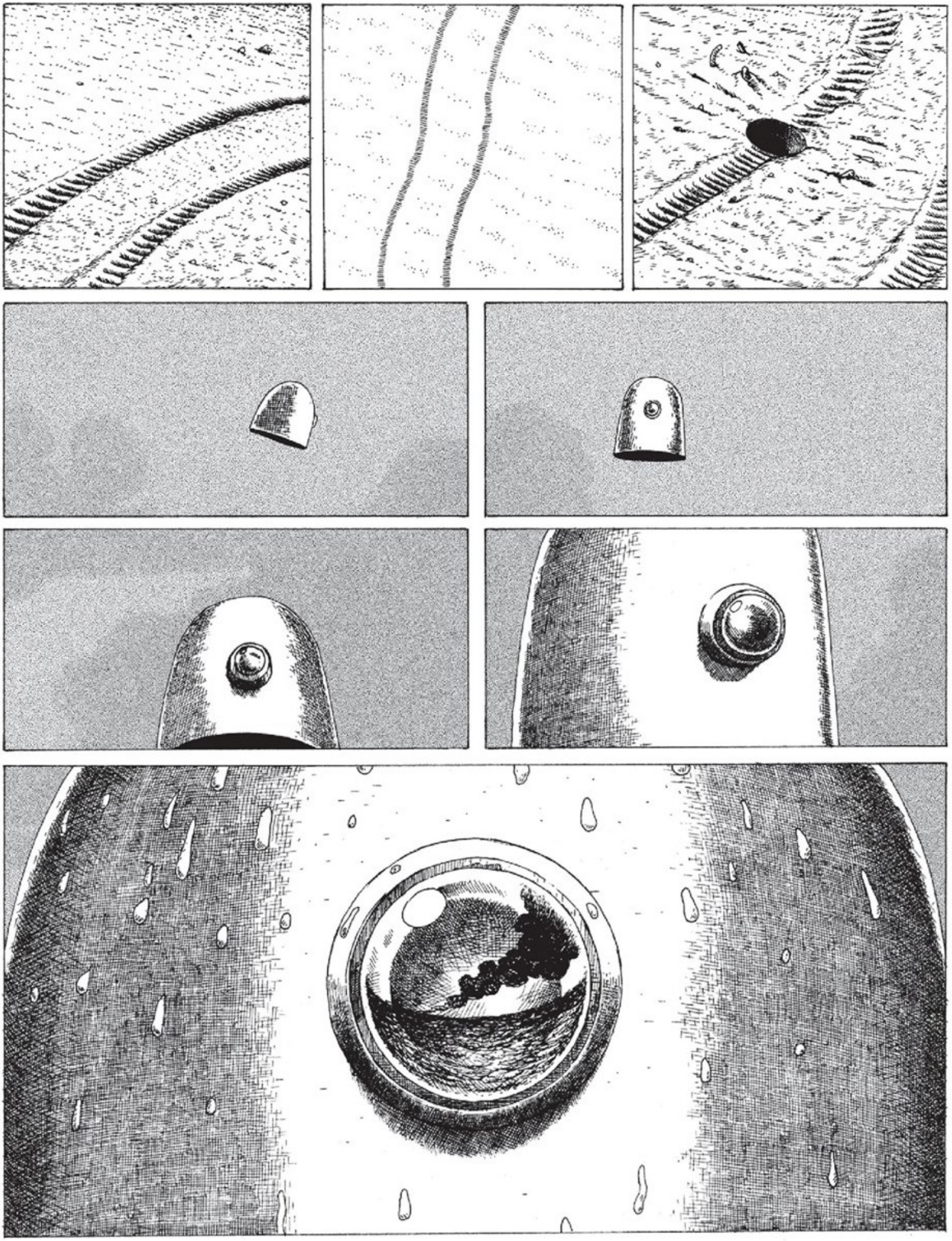


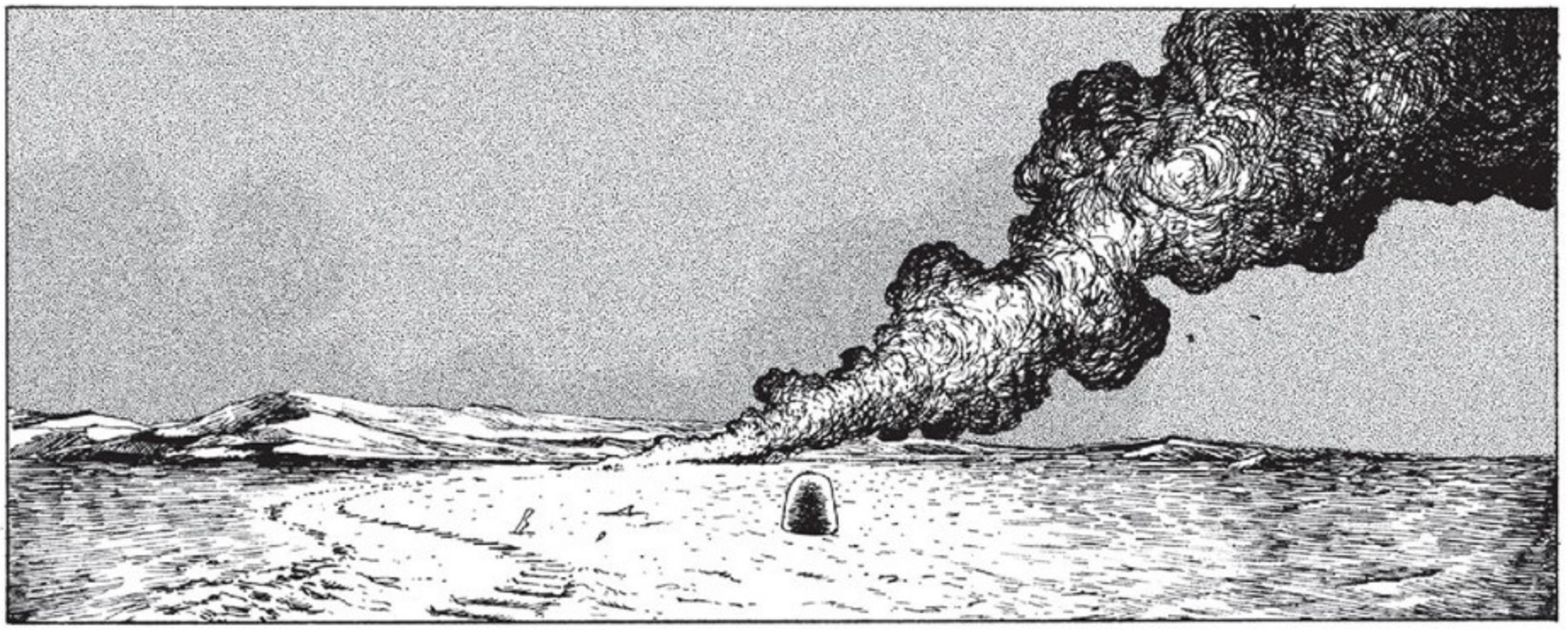


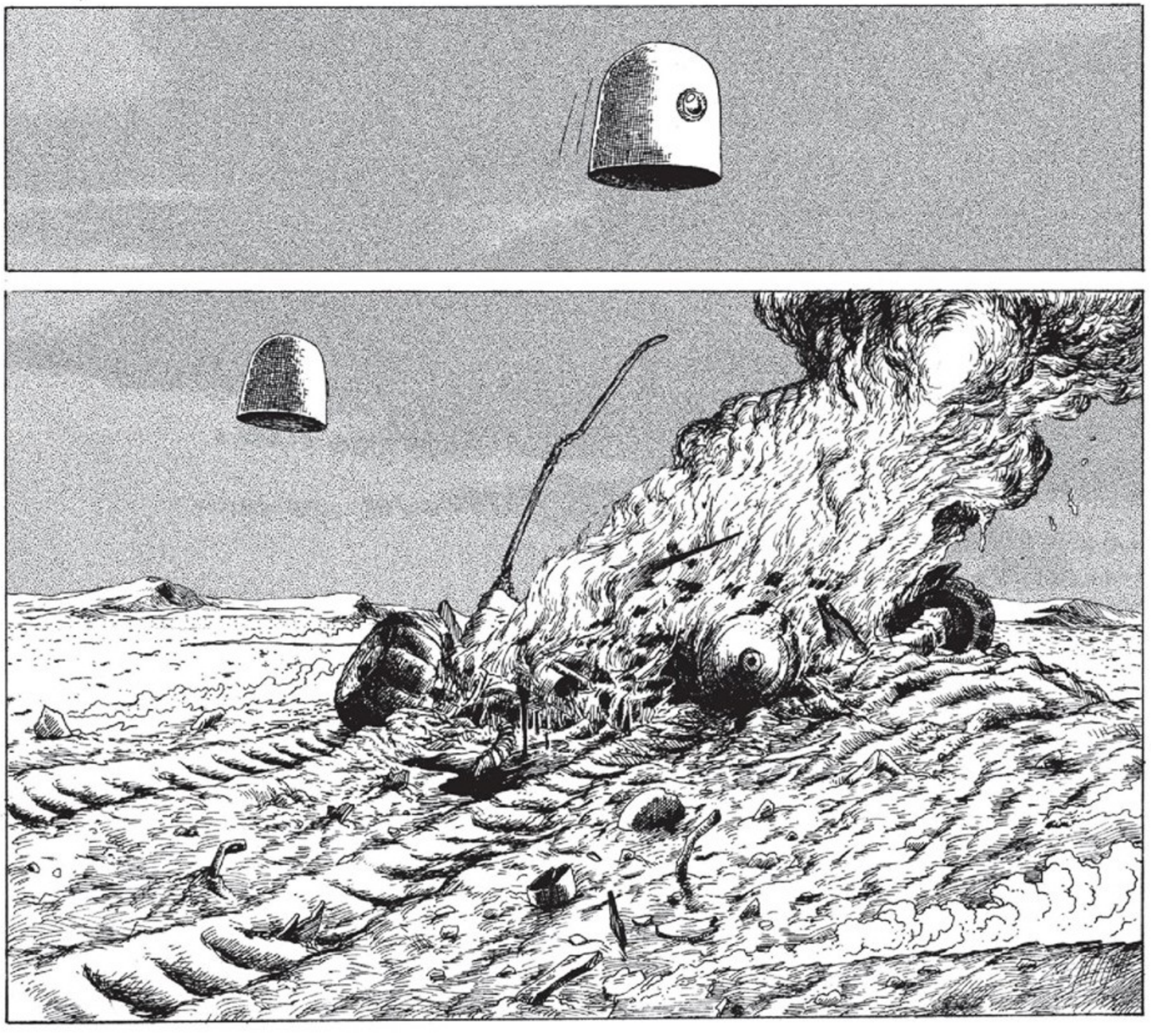


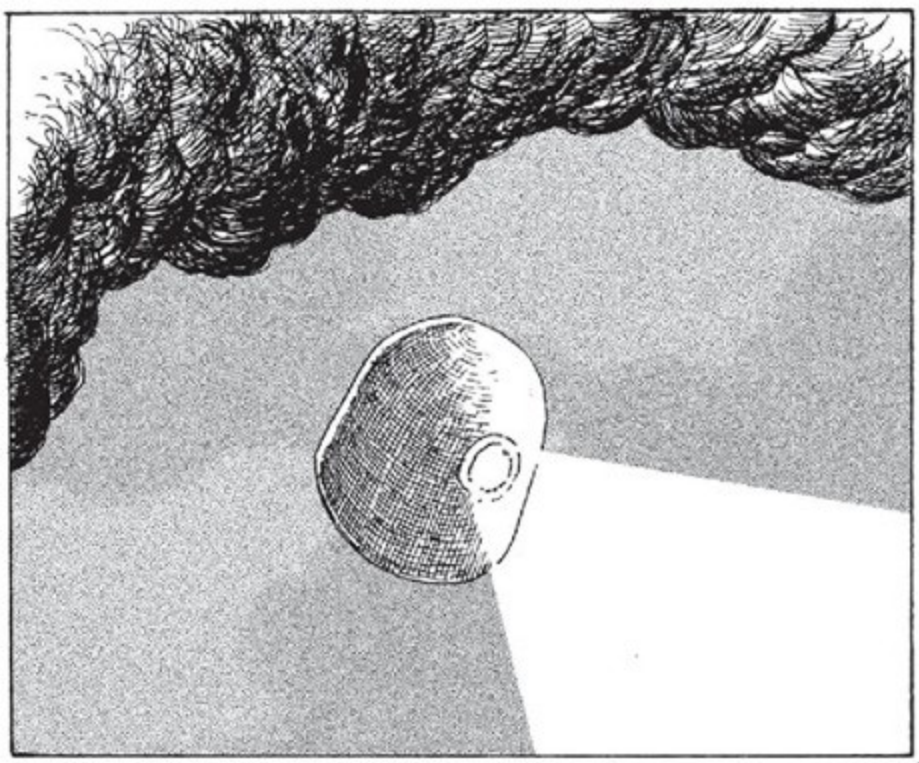


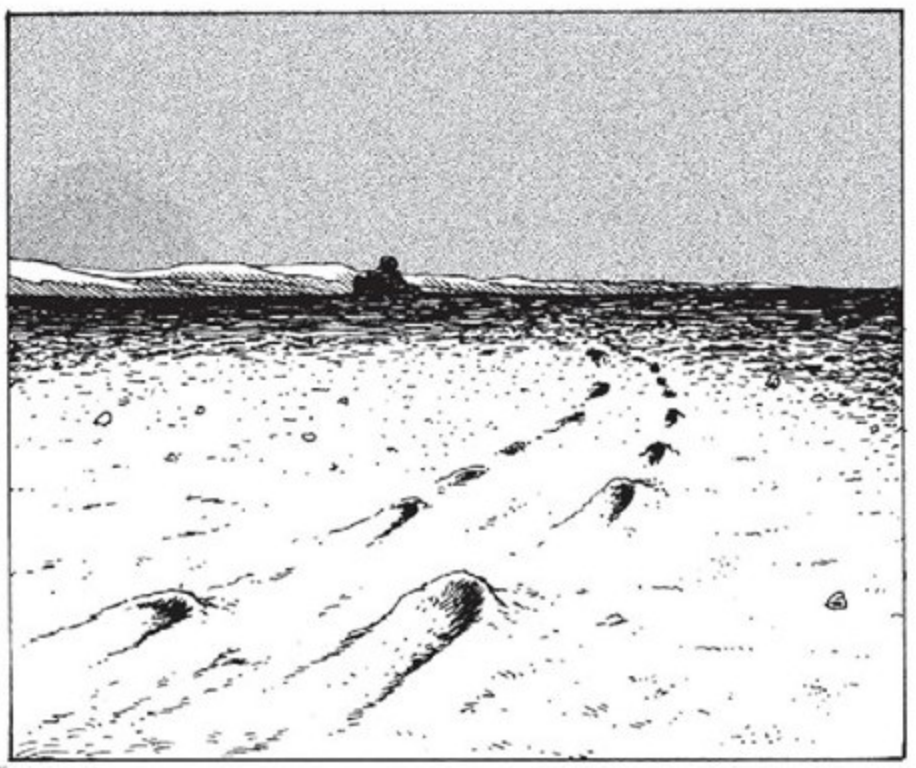


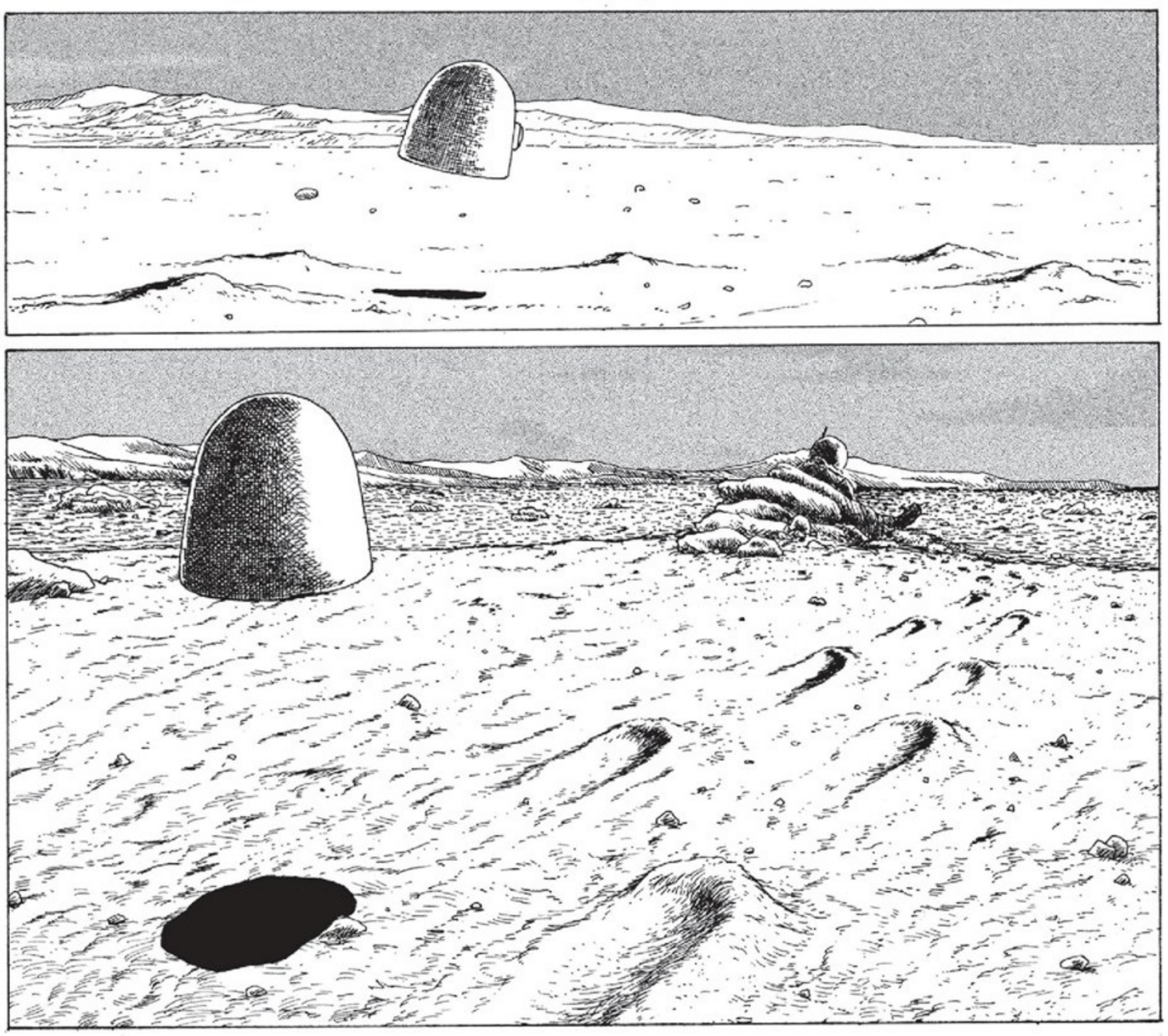


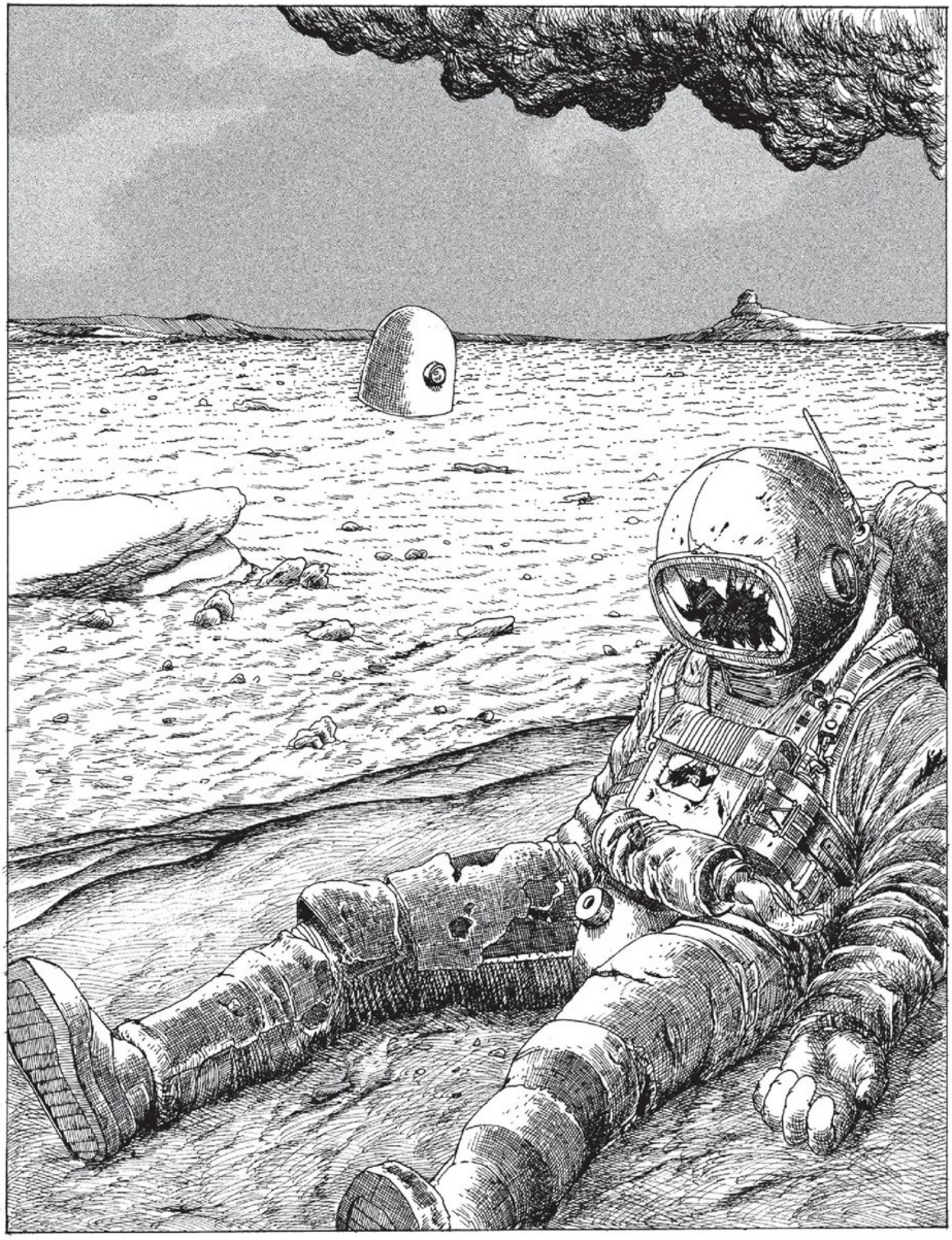


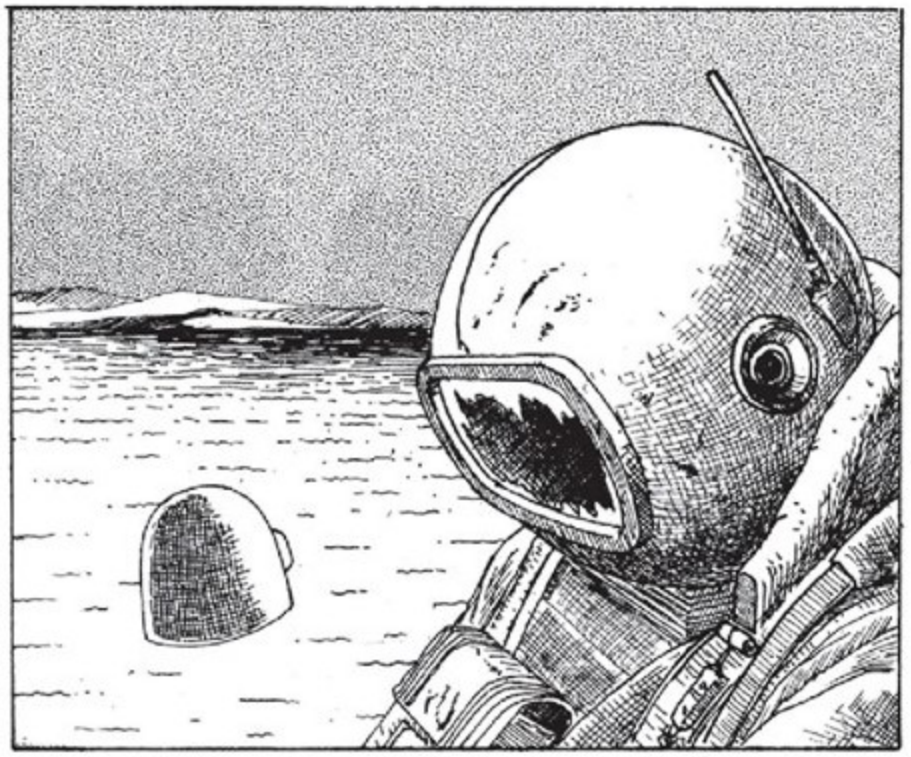


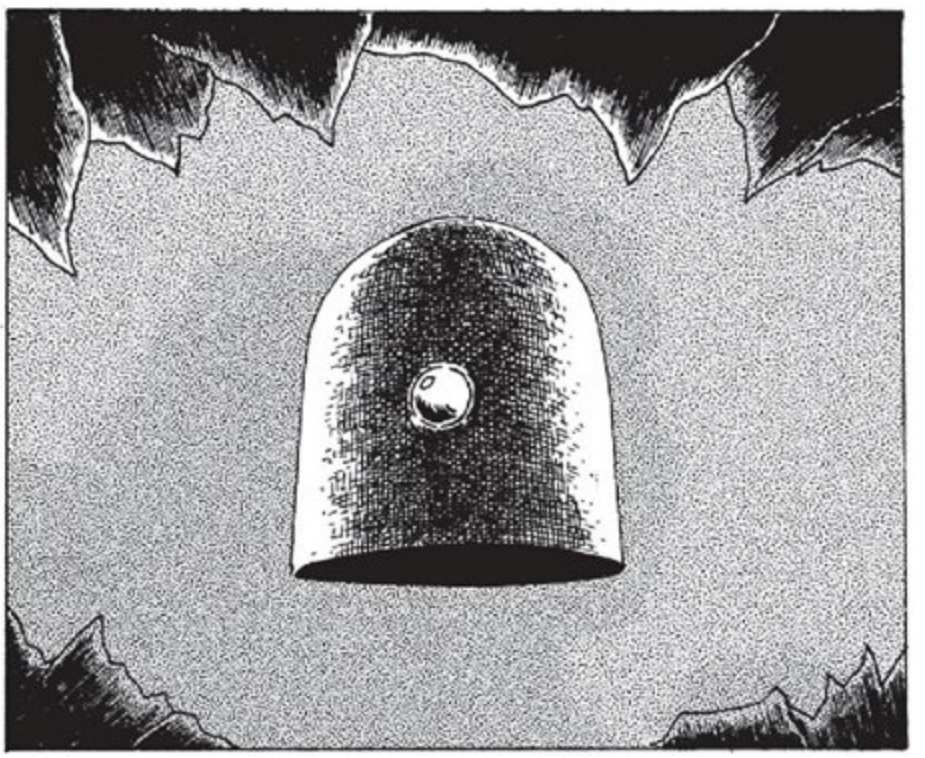


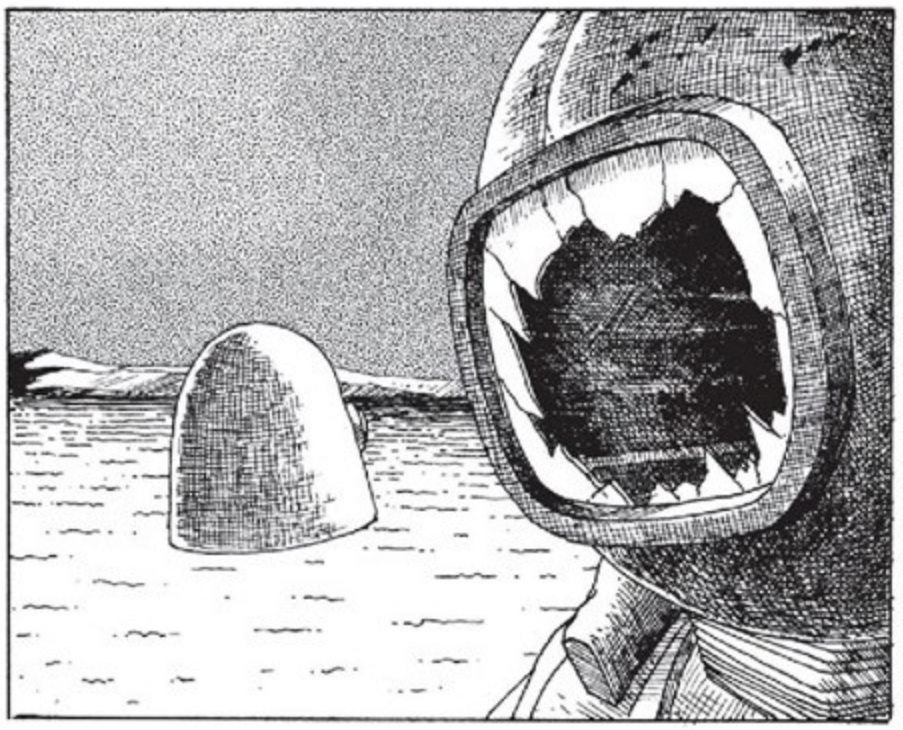


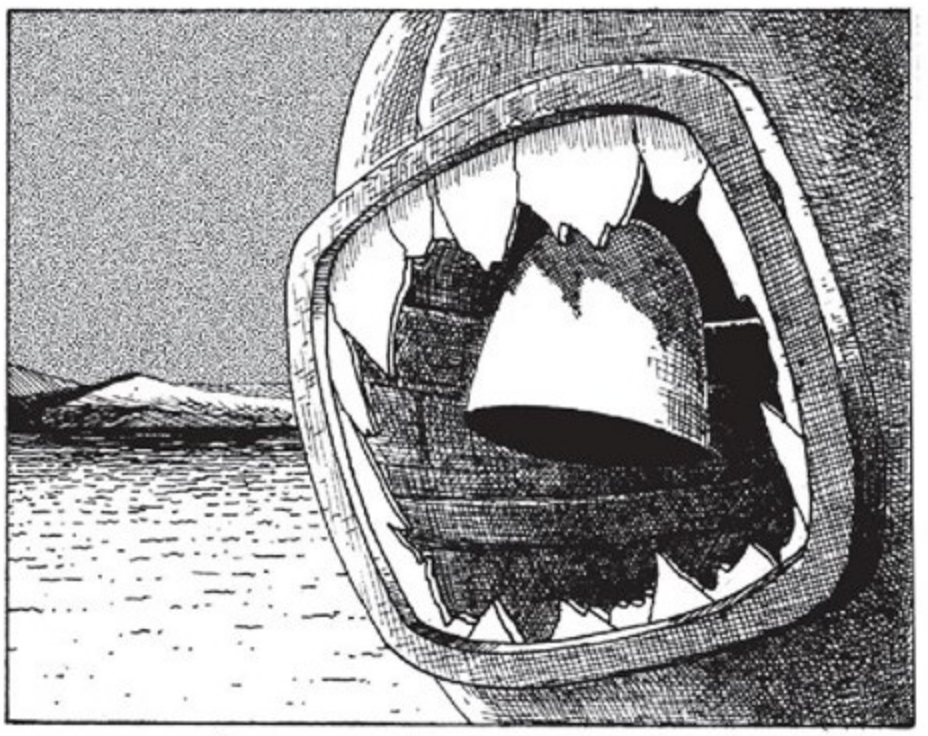


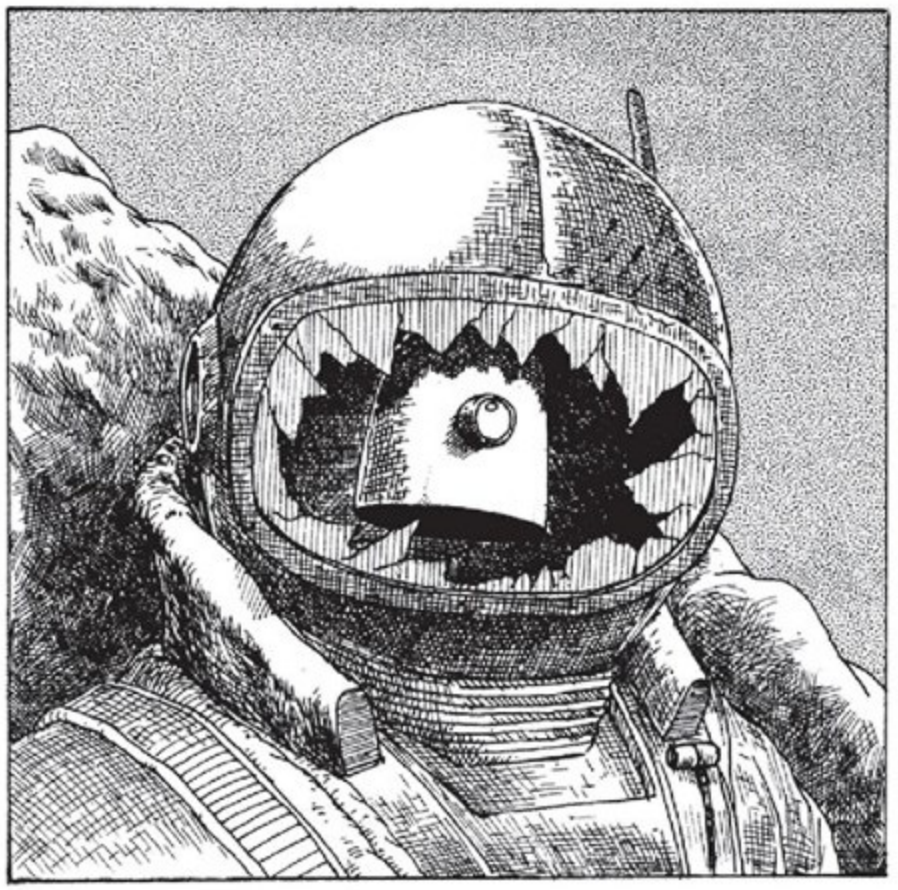




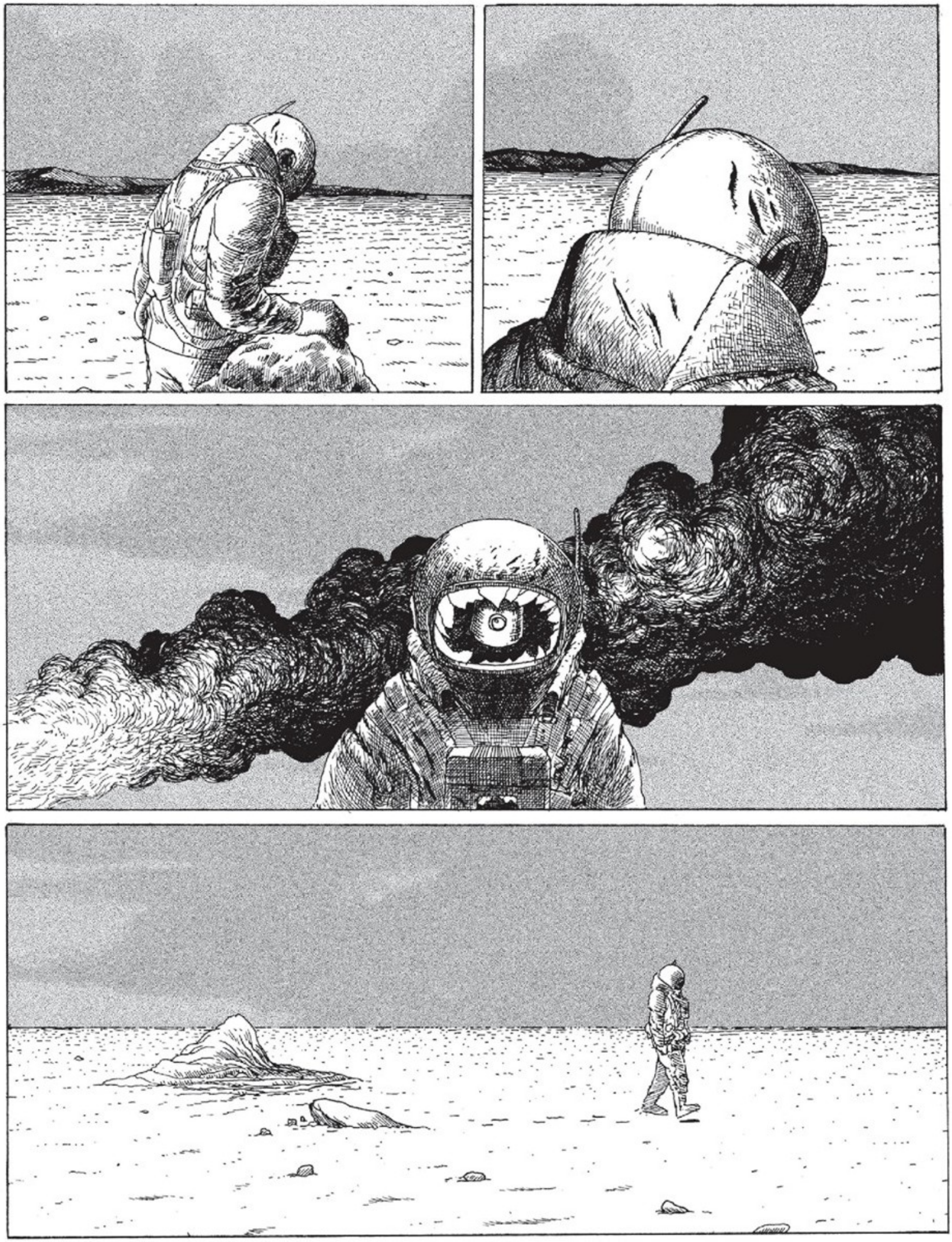


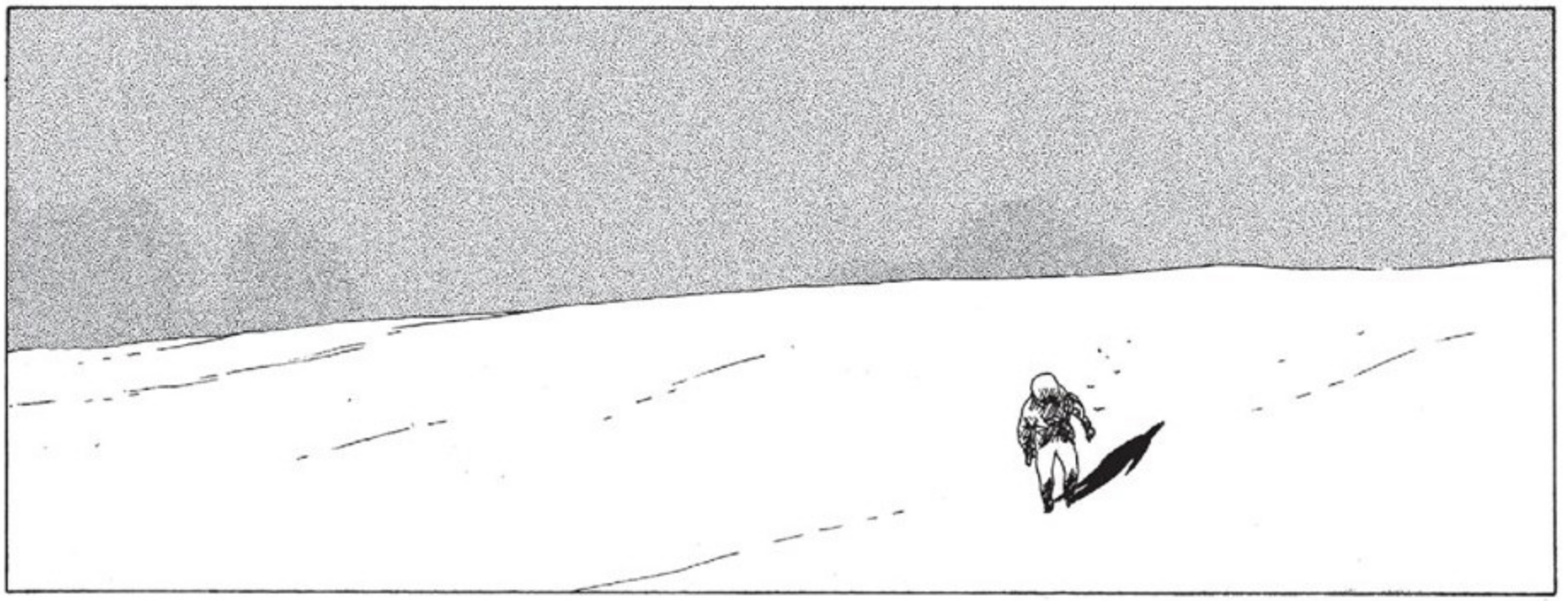


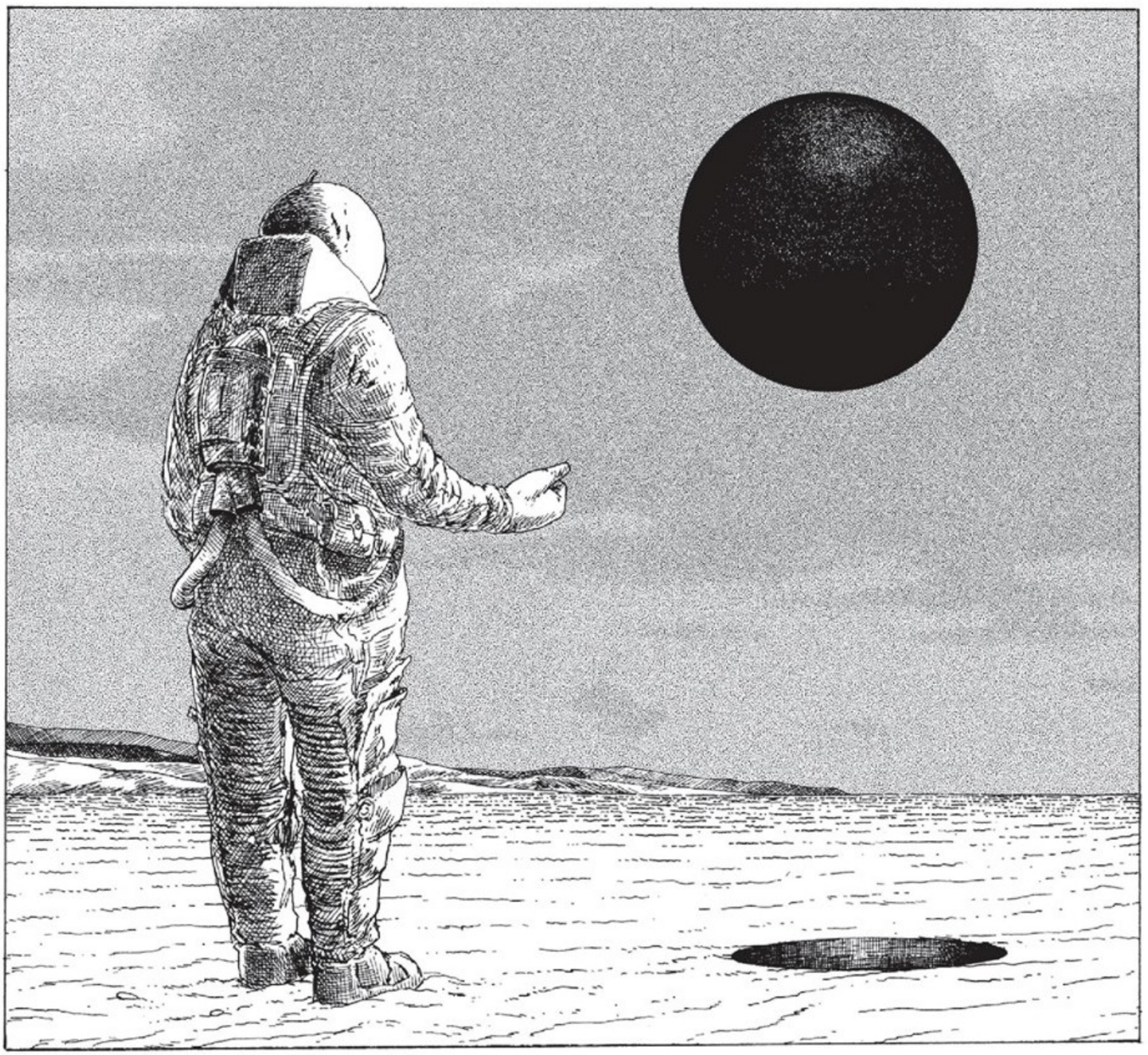




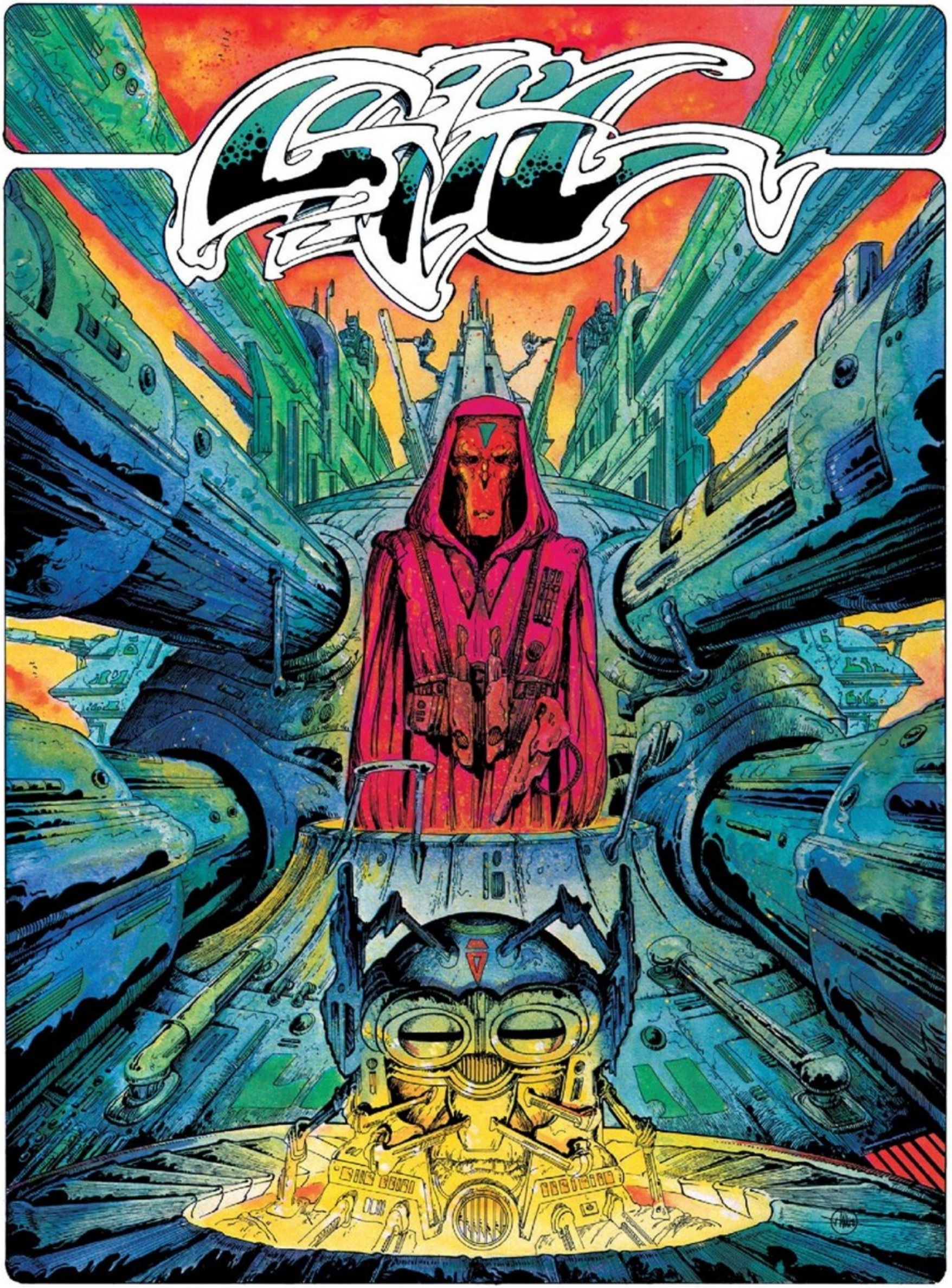








By **Philippe Druillet**



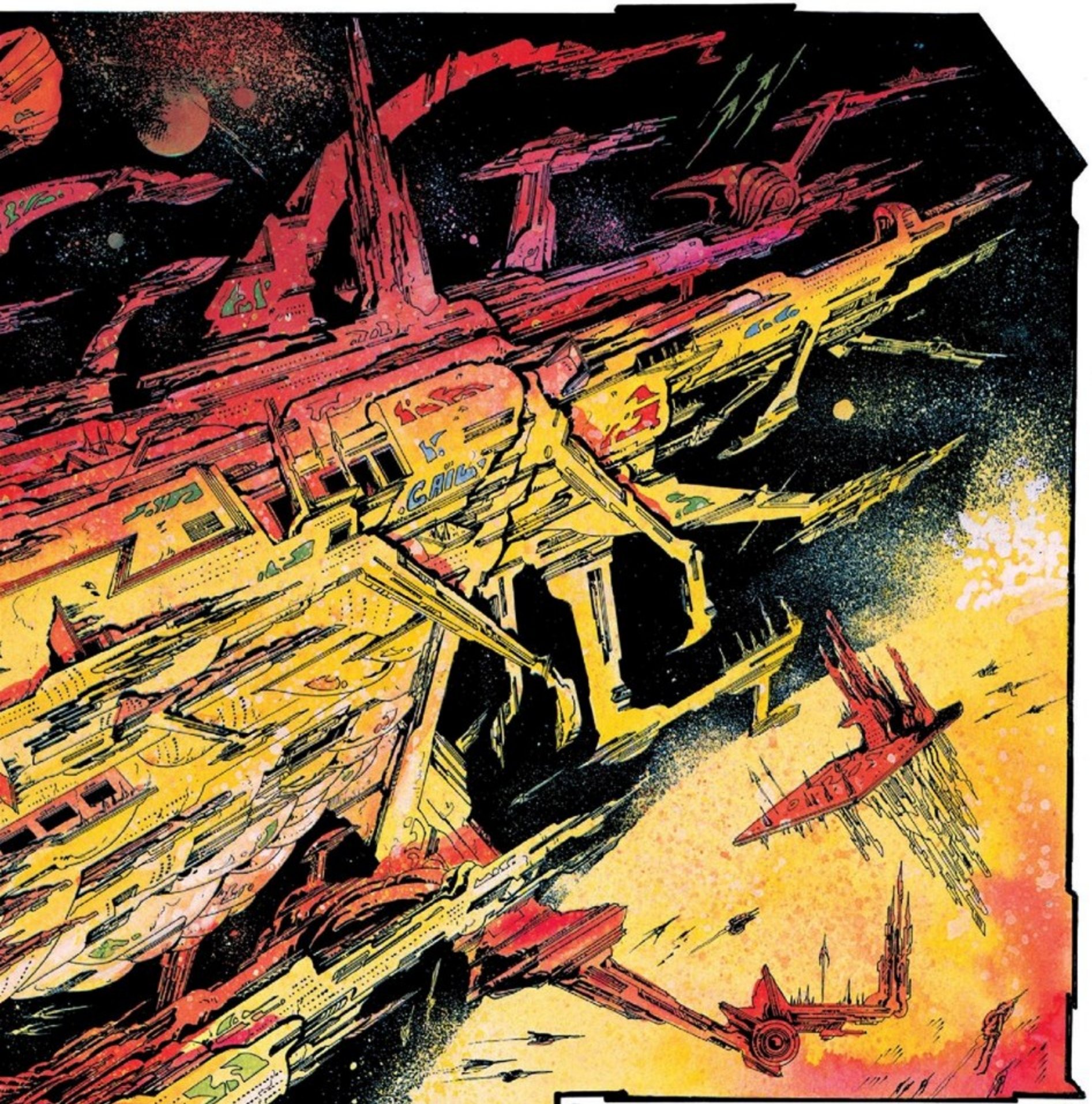


THEY WERE MADE OF METAL AND HATRED. ON GAÏL, THE GIANT PLANET, THEY RAISED THEIR PROUD MONUMENTS TO THE SKY, THEIR EYES SHONE AT NIGHT LIKE NIGHTSHADE BERRIES, THEIR ENORMOUS HANDS SEEMED TO BE FORMED FROM THE SAME METAL AS THEIR ARMOR, AND FAR INTO THE NIGHT YOU COULD HEAR THE TREMENDOUS BOOM OF THEIR VOICES...

THEY WERE MERCENARIES, RENEGADES, CRIMINALS FROM ACROSS THE GALAXY. THEIR ONLY PLEASURE: TO KILL. THEIR ONLY DESIRE: TO KILL AGAIN... FROM A PARADISE OF FLOWERS AND BIRDS THEY BUILT A HELLSCAPE OF WAR. SUCH WAS THE FATE OF GAÏL, THE GIANT PLANET. AND ABOVE IT ALL REIGNED IRIAM MERENNEN, ABSOLUTE MASTER OF HIS EMPIRE, A MANIAC, A DARK ENTITY WHO HAD EMERGED FROM THE UNKNOWN AND WHO, BY UNKNOWN MEANS, HAD BUILT THIS EMPIRE OF DEATH, A THREAT TO THE GALACTIC SHAAN ITSELF...

IN THESE CHAOTIC TIMES, WHEN CONFEDERATIONS WERE TEARING EACH OTHER APART, WHEN MEALY MOUTHED POLITICIANS AND GREEDY MERCHANTS WERE LIVING OFF A CRUSHED PEOPLE WHOSE EXASPERATIONS COMPOUNDED UNCEASINGLY, THE AGE OF ENLIGHTENMENT WAS DAWNING. IRIAM MERENNEN, AIDED BY HIS SPIES, "THE EYES OF THE NIGHT," AS WELL AS THE DERANGED DENIZENS OF THE OUTER RIMS, DREAMED OF CONQUEST. THE IMPERATOR'S UNSTEADY THRONE AND THE VICTORIOUS REVOLTS OF THE CENTRAL PLANETS MADE HIS HOPES PROPITIOUS. TO THIS END, IRIAM, LIKE SO MANY OTHERS, RECRUITED THE BULK OF HIS TROOPS FROM THE MOST FORMIDABLE PENAL COLONY IN THE ENTIRE UNIVERSE: "SAINT MARY OF THE ANGELS." IT WAS FROM THERE THAT THE IMPERATOR HIMSELF PROCURED HIS DEADLY BLACK GUARD, WHERE RICH MERCHANTS BOUGHT THEIR BODYGUARDS, WHERE THE MORE ADVENTUROUS DEVIANTS BOUGHT THE OBJECTS OF THEIR PLEASURES, FOR IN TRUTH "SAINT MARY OF THE ANGELS," UNDER THE AVERTED EYES OF THE LAW, HAD BECOME A VERITABLE SLAVE MARKET, A PLACE OF TERROR, A STAIN EVEN DARKER THAN THE VOID WITHIN THE KNOWN GALAXY...





FROM GAÏL, SHIPS LEFT EVERY DAY FOR "SAINT MARY OF THE ANGELS." IN THIS PENAL COLONY, THIEVES, CRIMINALS, POLITICIANS, MURDERERS, OR EVEN THOSE WHO HAD SIMPLY COMMITTED THE CRIME OF RAISING THEIR VOICE AGAINST OPPRESSION WERE THROWN INTO A JUMBLE, WITHOUT DISTINCTION AND PRACTICALLY WITHOUT TRIAL. ALL WERE SUBJECTED EQUALLY TO THE APPALLING CONDITIONS OF THIS HELLISH INCARCERATION. SUICIDE WAS IMPOSSIBLE: HOWEVER...

THOSE WHO REFUSED TO SERVE WILLINGLY IN THE ARMED FORCES WERE BRAINWASHED, TURNED INTO VERITABLE ZOMBIES, AND, THEIR SOULS EMPTY, THEY IN TURN BECAME KILLING MACHINES... AND SO, ONE DAY ON A DISTANT PLANET, A CONVOY OF CONVICTS WAS ABOUT TO DEPART...

STAND UP FOR ROLL CALL, SCUM!

CONVICTS, FROM NOW ON YOU WILL NO LONGER HAVE A NAME. YOU'LL ANSWER TO YOUR NUMBER. YOUR MARKINGS WILL BE YOUR STATES.

READY FOR BOARDING!

HON.
HON.
YOU, NEW GUY, WHAT'S YOUR NAME?
EUH... TOUSSAINT... TOUSSAINT THE UNKNOWN.
HON.

TOUSSAINT? THAT'S A SHIP NAME!
OTHERS SAY YOUR NAME IS FAMOUS!
IT'S THE NAME THAT BROUGHT ME HERE AND IT'S NOW MY ONLY NAME!
MY NAME IS TOUSSAINT!
HON.
HON.

MOVE ON!
GUESS THEY WORKED YOU OVER PRETTY GOOD, HUH!
THEY'RE ENJOYING IT. IT'S THE CUSTOM IN THIS PARADISE!

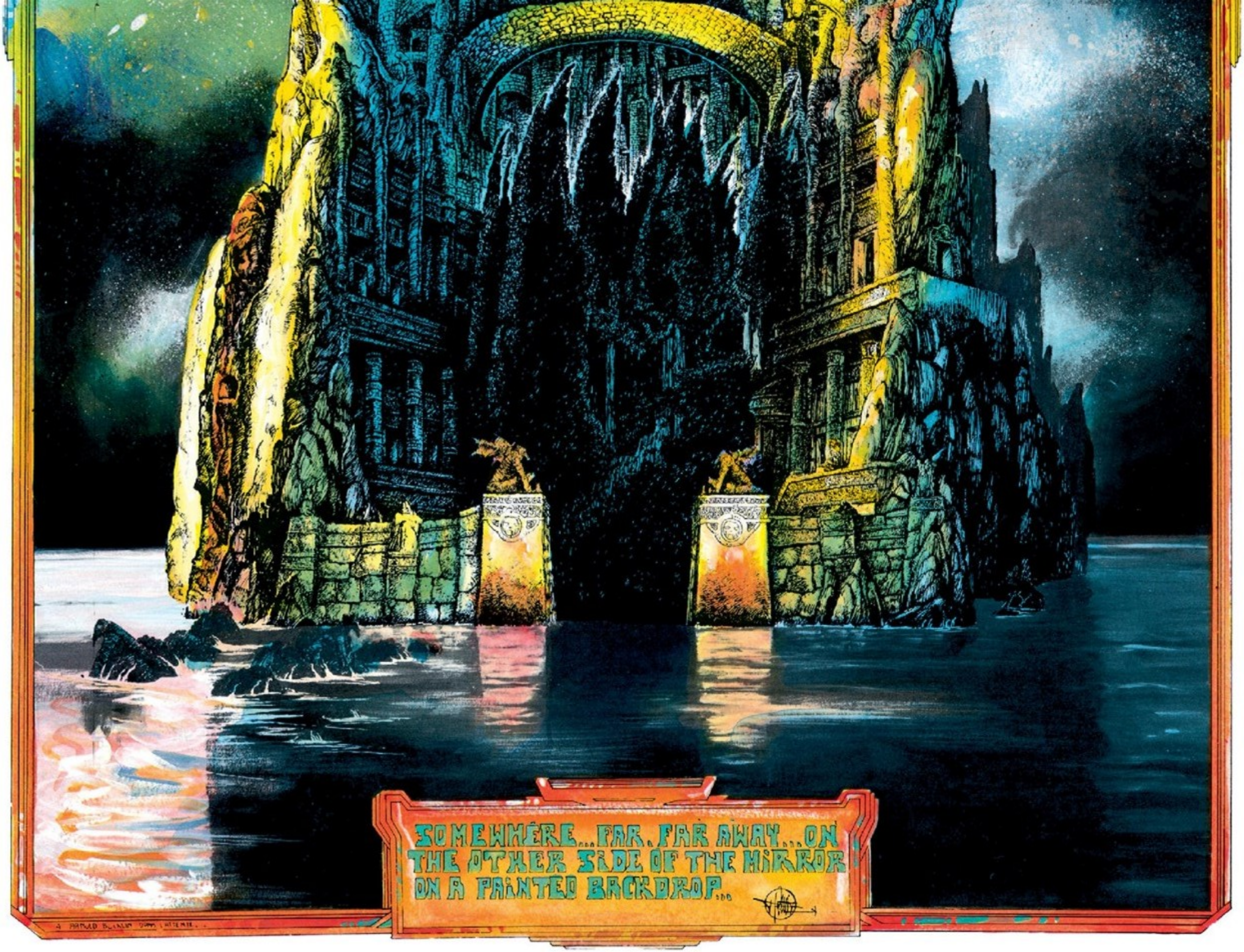
HOW'D YOU GET HERE?
WHO CARES? I'M HERE! THAT'S IT.
WATCH OUT, MATE!

SHUT UP, SCUM! OR I'LL CARESS YOU WITH MY LASER!

HAHA! BON VOYAGE, MY CHICKADEES! BON VOYAGE, AND THE BLACK GUARD TAKE YOU!

YOU'RE NOT MINE ANYMORE. YOU'RE ABOUT TO MEET "SAINT MARY OF THE ANGELS," PENAL COLONY OF THE STARS! WHERE ONLY DEATH IS HOPE! HAHA! FAREWELL, MY CUTIES!




SOMEWHERE... FAR, FAR AWAY... ON
THE OTHER SIDE OF THE MIRROR
ON A PAINTED BACKDROP...




INSIDE... ONE WAS DARK
AS THE NIGHT... HIS SERVANT,
THE OTHER, WAS FEARSOME. HE HAD NO
NAME AND DRANK SOULS LIKE WATER...
BOTH PLAYED... TOGETHER...

THEY TOOK HIM... LIKE SOME BUM IN A CENTRAL PLANET WHOREHOUSE, PANTS AT HIS ANKLES, DRUNK... THEY DIDN'T RECOGNIZE HIM...

THE RED-EYED DOG. AND HIS FRIENDS?

GONE... HIS SHIP DESTROYED... HE LOST HIS NAME, A TERRIBLE SHOCK EXTINGUISHED HIS SIGHT... THEY TAKE HIM NOW TO SAINT MARY OF THE ANGELS. A CHOICE RECRUIT FOR MERENNEN...

HE'S USELESS TO US BLIND!

IF THE BALANCE BREAKS, EVEN DEATH WILL DIE. MERENNEN MUST NOT BE... WE WILL RETURN HIS RED-EYED POWERS...

...IN DUE TIME...


THE VOYAGE...
HON.
THE WAITING...


THE ARRIVAL...
SAINT MARY OF
THE ANGELS...





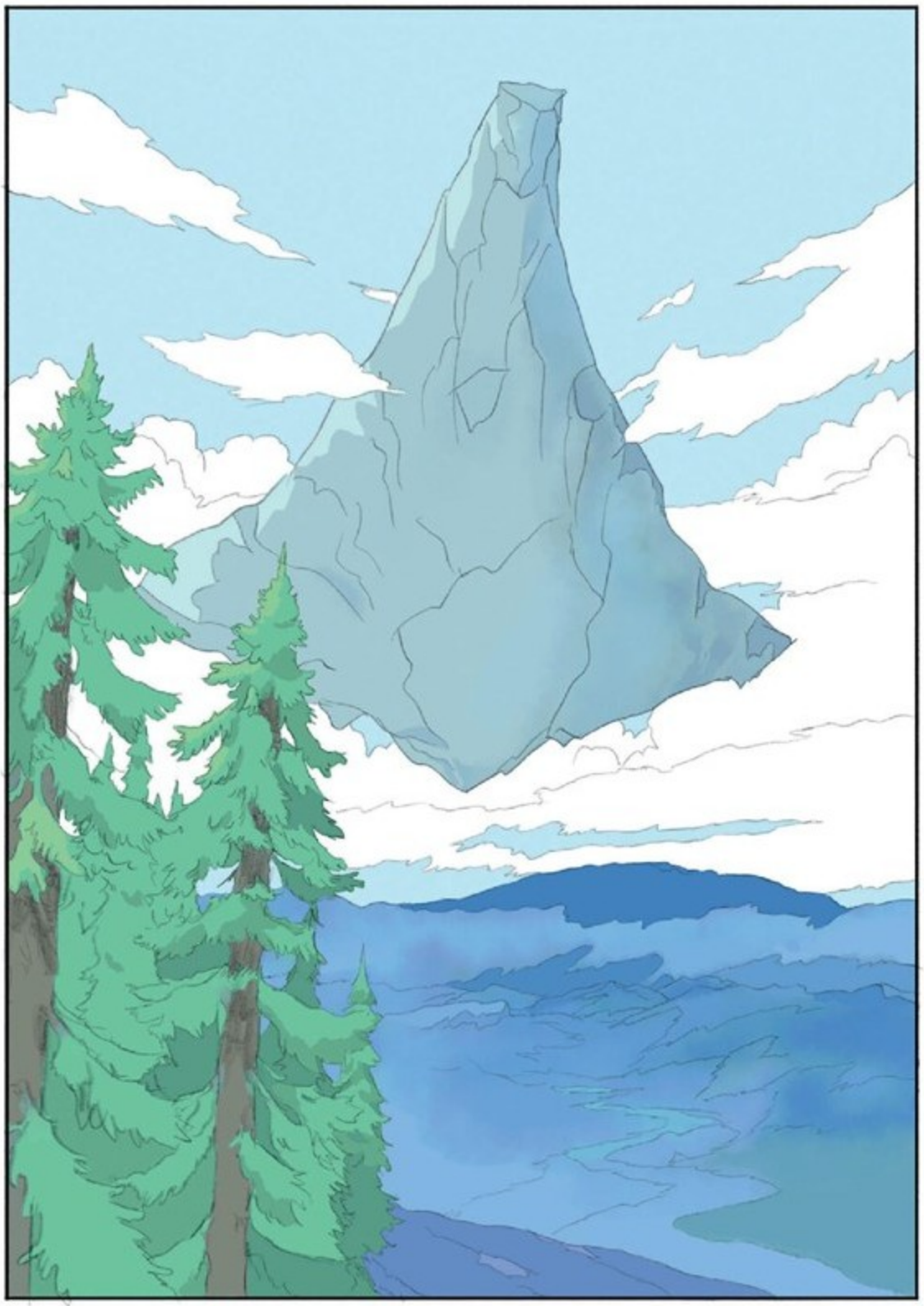
THE REMAINDER by Matthew Sheean

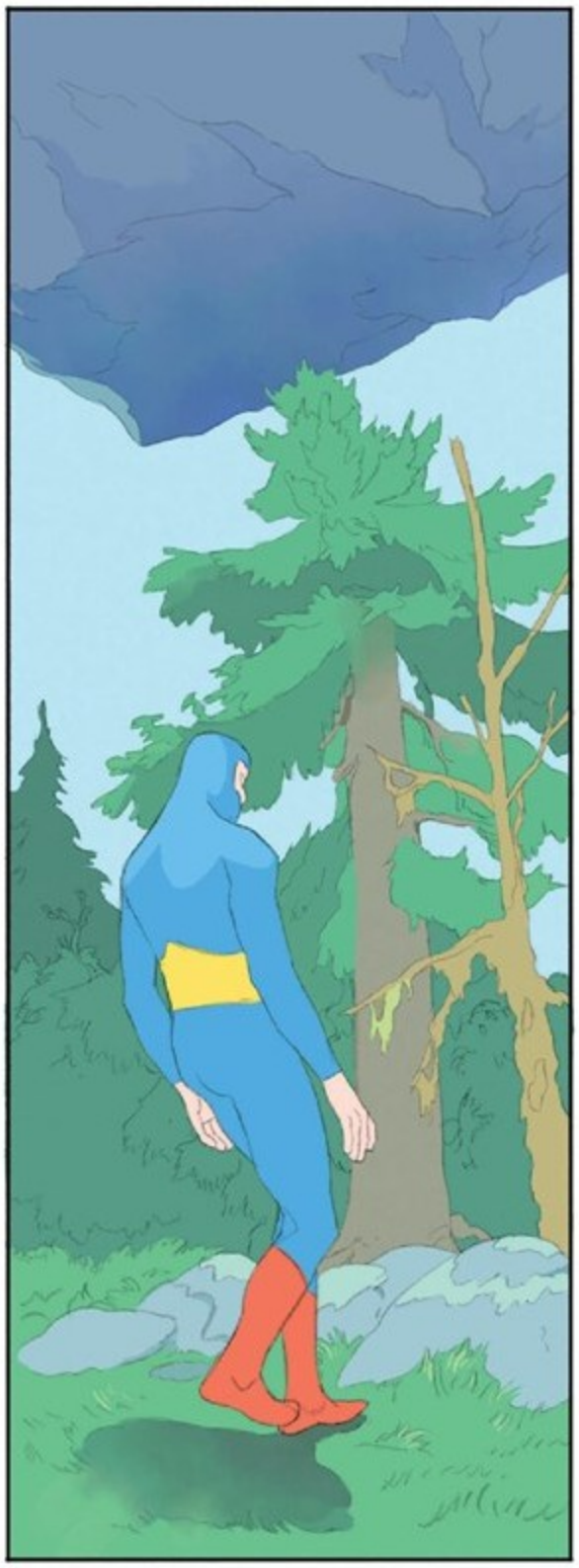


THESE LATER THOUGHTS WERE MORE RATIONAL.

I DEVISED A PUNISHMENT MORE FITTING FOR YOUR CRIMES.


YET AN ERROR PERSISTED IN ALL MY MUSINGS.






BY CONSTANT RUMINATION, I RETURNED AGAIN AND AGAIN TO A MOMENT PAST...
...LONG SINCE MUTILATED BY MENTAL GNAWING.










IN THE NIGHT YOUR CHILDREN GREW BOLD,
AND DELIVERED YOU TO ME.








A DAY AND A NIGHT,
AND TEN THOUSAND
YEARS BEFORE
WERE ETCHED ONTO
YOUR ONCE AGELESS FACE,


AND SHOWED ME ALL
MY COUNTLESS THOUGHTS
HAD HIDDEN.


MATT

THE WHOLE WORLD WILL BE WATCHING by Branko Jelinek



YOU DON'T KNOW SHIT! I'M BURNING UP IN HERE!

DAMN IT, DO SOMETHING! I'M GOING TO DIE HERE!

OUR TEAMS HAVE LOCATED YOU.

PROCEDURE CODE: 38.

VISUAL CONTACT ESTABLISHED. TEAM 3, YOU ARE AUTHORIZED TO INITIATE PROCEDURE 8. REPEAT, PROCEDURE 8 INITIATED.

EXTRACTION IN: 6 MINUTES 40 SECONDS.

YOU'VE GOT TO BE KIDDING ME! 6 MINUTES?!

I'LL BE A COOKED HAM BY THEN! IT CAN'T END LIKE THIS...

YOU'RE A HERO! THINK OF YOUR BEHAVIOR AS AN EXAMPLE FOR THE YOUTH OF OUR COUNTRY.

EXTRACTION IN: 6 MINUTES 30 SECONDS.

TO HELL WITH THE YOUTH, THEY DON'T CARE ABOUT ME, THAT I'M ROASTING ALIVE IN THIS POT!

AND THEY DON'T GIVE A DAMN ABOUT YOU EITHER!

ONCE AGAIN, OUR REGIME WILL BE A SOURCE OF INSPIRATION FOR ALL, AND IT WILL SHINE THROUGHOUT THE WORLD.

OUR COUNTRY IS COUNTING ON YOU.

I'M MELTING HERE! IT'S LIKE MY SUIT IS FULL OF ACID. THIS ISN'T NORMAL! DON'T TELL ME IT'S NORMAL!

YOU'VE SCREWED UP AGAIN, AND I'M THE ONE PAYING FOR IT.

PLEASE REMAIN CALM. ALL INDICATORS ARE WITHIN NORMAL LIMITS.

WITHIN THE NORM, YEAH, RIGHT!

I DON'T GIVE A DAMN ABOUT THE NORM, MY SKIN IS ABOUT TO MELT OFF! I'M GETTING OUT OF THIS SUIT BEFORE IT KILLS ME!

PLEASE RESPECT PROTOCOL! THIS IS NOT ALLOWED AT THIS STAGE OF THE PROCEDURE!

WHAT THE...?

ALL INDICATORS ARE WITHIN NORMS. YOU'RE SAFE, PLEASE RESPECT PROTOCOL!

AAAAAH!

THERE'S ABSOLUTELY NOTHING TO WORRY ABOUT. EXTRACTION IN: 5 MINUTES 10 SECONDS.

YOU'RE THE FIRST TO SUCCEED. OUR GOVERNMENT WILL BE ETERNALLY GRATEFUL.


CCCP
THIS NEW SUCCESS FOR OUR COUNTRY WILL LEAVE ALL OUR ADVERSARIES STUNNED.
WE'VE DONE IT!
THE EYES OF THE WORLD WILL BE ON US!



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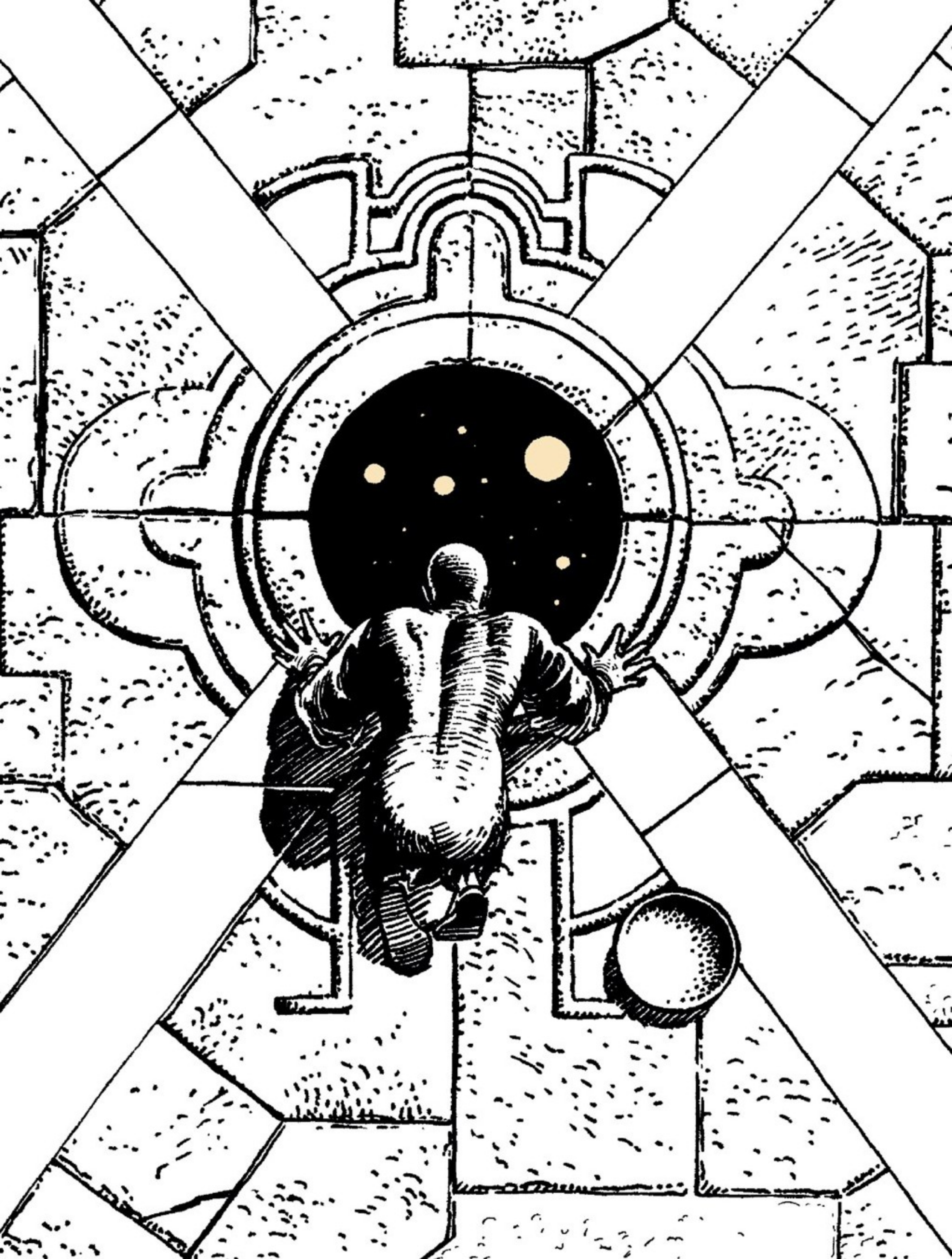
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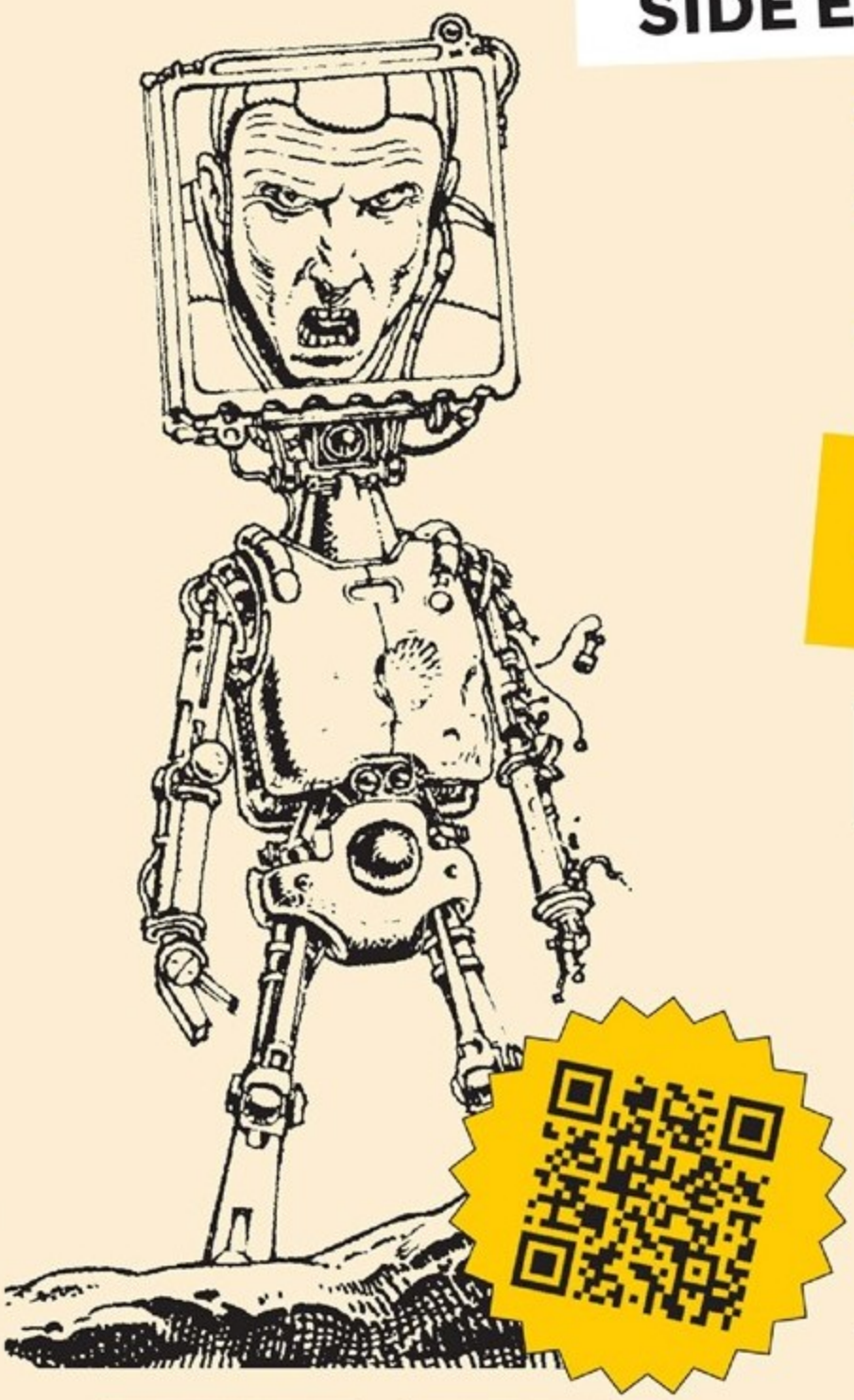


Illustration by Alias

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- Rapid mind expansion
- Disconcerting but thrilling thoughts and visions
- Sudden onset of dissatisfaction with daily life

If you have been experiencing any symptoms, DO NOT contact your doctor for a prescription:

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SPACE STARES BACK

In space there is no oxygen. No warmth. No life. No hope.

Or is there?

The premiere sci-fi comics anthology from Humanoids travels the vast reaches of the cosmos to answer the question, when we stare into space, what stares back? The greatest comic creators of yesterday and today have the stars as their destination as they deliver tales of extra-terrestrial encounters, alien landscapes, isolation, exploration, paranoia, survival, and hope in the unforgiving darkness of the ever-expanding universe.

Inside, all packed into 272 pages of interstellar wonder: an interview with *Star Trek* franchise science advisor Dr. Erin Macdonald, an exploration into a German WWII device of destruction remade into an image of aspiration by NASA historian Lois Rosson, illustrations, and twenty-four undeniably out-of-this-world cosmic comics from:

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