

**THE ALPHA CENTAURI PROJECT
(THINKING WORLDS)**

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The Alpha Centauri Project (Thinking worlds)

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DEDICATION

To he who explores new horizons,
because knowledge doesn't have limits;

to he who tries new ways,
because dreams become reality;

to he who pursues brotherhood,
because peace is not a chimera.

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PREAMBLE

According to future studies, the world will be dominated soon by disruptive technologies, able to plunge Mankind into an era of accelerated progress. Main outcomes will be the achievement of immortality, the creation of smarter than human Artificial Intelligence and the spread of the new species through the universe.

“The Alpha Centauri Project” is a breathtaking story set in a near future altered almost beyond recognition by disruptive technologies.

24th century. Humans live on Earth and the Moon, last strongholds of their past power. Mars and the Net are inhabited by artificial intelligences and souls, these last obtained by digitizing the brain after death. The virtual reality allows the two races to communicate. Their differences are deep.

With digitization, humans have postponed real death to an indeterminate future, but they are not happy. Towards the virtual beings they feel admiration but also inferiority and envy.

The digital creatures instead cannot bear being relegated in worlds too small for their unbounded ambitions. Their Martian experience has allowed them to develop the competence necessary in extra-terrestrial environments, most of all to acquire the self-confidence indispensable for the colonization of other star systems. The Alpha Centauri project is born.

The mission obtains the humans’ support. In exchange the digital beings abandon the idea of expanding on the Earth. Just before departure, Earth Security intercepts a suspect message from the Space Agency. Terrorism? The evidence leads to the Elects, a sect that entered Net fifty years before through a collective suicide...

Eve and Victoria, the main characters, are “souls”, digital beings whose brain was digitized after death. They move in a context of epoch making events, becoming more and more involved and finally merging their destiny with that of the digital people.

CHARACTERS

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Digital being, historian

Adam

Artificial intelligence, an Elects' member, son of Eve Dirac, Victoria and Martin Wing

C573Y

Artificial intelligence, Security officer

Eve Dirac

Soul, Master of the Elects, information technology scientist

James

Human, Victoria's partner

Marcus Rand

Human, Defense general

Martin Wing

Soul, Councilor of the Elects, civil rights leader

Nicole

Human, Victoria's companion

Nihil

Soul, Grand Master of the Elects

Victoria

Soul, James' partner.

Scenes in Net are indicated by @.

REVOLUTION

At the beginning of the 24th century, Man, proud of his own successes, looked to the future with optimism, convinced that in a future not far away his rashest wishes would change into reality.

Meanwhile, the newborn Net people undertook the first interstellar voyage: a Cyclopean enterprise with which all the population was sailing to a new world, an event destined to change the protagonists of History.

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IN THE NET

@ Year 2300, eve.

From the dining room, come the presenter's jokes followed by roars of laughter. The head waiter takes Victoria to a hall crowded with customers in elegant suits.

In a cheerful dance, laser beams are criss-crossing the gigantic hologram of a Christmas tree with iridescent reflections. Shortly before midnight the 'tree' will vanish leaving the floor free for celebrations. On one side, three colored musicians dressed in white are performing compositions from past times.

This spot, famous for its excellent food, first-rate service and famous artists, is placed in one of the most exclusive zones of Net and reproduces the environment and the atmosphere of a much earlier epoch, when the virtual world was not yet born.

Victoria orders an aperitif and checks her appearance in the mirror in front. Her big jade eyes show up a lovely face, her raven hair covers her naked shoulders and the blue lace dress, plain but provocative, reveals her perfect breasts.

The longing solo played by a frenzied trumpet, seems a distant melody.

The chair in front is empty.

She opens her leather handbag, scans inside for a moment, tightening her lips. Then she concentrates on the clients at the entrance. Elegant overcoats.

There he is! Impressive height, black hair and handsome features. In dinner-jacket, with a silver strip around his waist, a white handkerchief in his breast pocket. A waiter rushes to him and points to the table.

The man hurries towards Victoria. He bends and whispers: "This evening will be just for us."

"I feared you had forgotten me."

The man orders an aperitif. He looks through the menu, and when the cocktail arrives, he sips from time to time. Finally he raises his eyes: "What about an epoch dish?"

"OK."

"French cuisine?"

She nods.

They place the order.

Victoria stares in silence at the waiter pouring a vintage Bordeaux into crystal goblets. Then she rotates the glass gently. Ruby color, fruity aroma. On her lips, a sad smile.

"Is there anything wrong?" asks James.

"For you it is easy. You spend your day in the real world. Instead I'm here waiting for you

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all day long...”

James stretches his arm along the table. Meanwhile Victoria continues: “When I met you in Net after my accident, I thought our love could withstand forever. Not even my death had separated us! I gave up the dehumanization to remain the person you loved. But now I'm not sure anymore.”

“I realize how difficult is here.”

“I believed I could integrate in the digital world. But without dehumanization, I am too different from the other souls!”

“You should return to the real world,” says James caressing Victoria’s hand. “I'll buy you a gynoid (1). You can install inside.”

“We could sleep together at least! But what shall we do if the law making dehumanization compulsory, passes?”

James touches lightly Victoria’s nose with his forefinger. “I’m quite sure it doesn’t. The opposition is very strong. But now let's enjoy this evening. I want to see you smiling!”

@ Scene in Net.

(1) Robot with feminine features. The digital beings can install themselves inside.

AROUND THE SOLAR SYSTEM

They wanted to mark the beginning of the new century with an out of the ordinary holiday. As in the previous years, they could choose one of the many proposals of Net, but this time they wished to measure themselves against the real world.

Finally, they opted for the *Jupiter satellites*.

Europe, the most sought-after destination of space tourism. A splendid view of the imposing planet, plowed with deep stripes and continuous storms, covering most of the sky. An interminable ice pack furrowed now and then with wide fractures from which volcanic water spurts. Underneath, ice caves dozens of kilometers long, and down in the depths, an ocean inhabited by rare luminescent creatures.

Io, the antechamber to Hell. Lava rivers, ash plumes and sulphur boiling lakes.

The Jupiter aerial mines. Colossal factories hanging from aerostatic balloons, which extract a helium isotope used as nuclear fuel from the atmosphere.

Just a few weeks before their departure, a business engagement arose. They fell back on a much shorter holiday, for only three days but guaranteeing intense emotions. They were going to climb a Mars canyon. Not one of the many, but the deepest chasm in the solar system. Notwithstanding their haste, they studied the preparations in the smallest detail. As for the equipment, the choice fell on the latest android model: a two-meter-tall body made of ultralight material, strengthened with carbon nanotubes; the rock-climber's dream.

Here they are on Mars, transported by laser beams. Inside their new bodies, lined up along a wall of a room crammed with equipment. Cold, the only noise the humming of the devices. They exchange a few jokes, then set out along a deserted corridor, following the markings on the map that appears in their visual fields. Their footsteps resound against the metal walls, every now and then distant echoes reach them.

They step into a garage. A hovering ovoid approaches. The doors slide open. They get in. Soft gray seats. From behind, arms like hoses wrap them gently. The automatic pilot wishes them a nice stay.

The nacelle fills up with colors. A powerful acceleration. The aircraft darts out of the garage through a round opening and heads for the desert. Behind, the white spot of the rapidly receding base, shows up in the middle of the red sand like a diamond dropped from the sky.

C573Y raises his eyes towards Phobos, one of the two small Martian moons. Its long and lumpy shape has never stopped amazing him. Nearby, three new stars are twinkling: Niña, Pinta and Santa Maria, the spacecrafts of the Alpha Centauri project, one kilometer wide spheres, orbiting around the planet at twenty thousand kilometers. Smaller lights crown

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them: the assembly stations of the shipyard - now inactive after ten years of intense activity - and the freighters intent on transferring - from their huge tanks - the nuclear fuel extracted from the atmosphere of Jupiter and Uranus.

The ovoid flies low over the desert, covered here and there by frayed carbon dioxide clouds. An hour later, it plunges with a sharp turn, into the Marineris Valley, a deep wound in the Mars crust. On both sides, sheer cliffs, rock spikes and inlets, on the bottom an interminable expanse of rocks and sand.

The aircraft goes beyond a small settlement under construction – yards packed with equipment and robots busy assembling prefabricated modules – and skims over a series of high dunes on which the wind has drawn thin waves.

It heads for a gorge and lands at about two hundred meters from a face. When the doors open, the passengers sink their boots into the soft light sand, nearly a dust. Icy and rarefied air. Not far, a whirlwind is running along the slope of a dune. The androids raise their eyes towards the wall. Its boundaries are lost on the horizon, and the rock columns crowning it look like claws gripping the sky. It is covered with friable sediments, a serious danger even for the most expert climbers. To be avoided, not to be forced into difficult detours.

C573Y draws a piton out of his rucksack. A simple piton. It couldn't be otherwise: the great challenges require lack of means and out of the ordinary capabilities. As the Titans did in ancient times.

They climb as fast as spiders. Tiny figures on an ochre sheet. Mechanical movements, meter after meter, always with the same concentration. Their glance towards the sky, because it is there they will have the impression of being, once on the top.

No problems for almost a day. Till they hear a distant rumble. Excited cries. Frenzied gestures, someone points at a recess. They rush into it.

A dark front of sand and rocks is swooping down, carrying away the projections along the way, devouring the wall. A threat that not even the climbing androids – technological jewels of the 24th century – can withstand.

They keep still, staring at the wall of powder bursting into the shelter and covering their shields with a thick layer.

The night.

Endless.

Passed exchanging impressions and stories. Lit by the beam of a torch, that makes features of faces and bodies emerge from the darkness, reabsorbing them with each movement.

From time to time, distant bangs. Thunder? Slides?

All night.

A series of whistles and whispers announces the day. A sweet and nostalgic singsong. The lament of a wife grieving over her companion who has left on a long journey...

The androids stick their heads out of the shelter. The sunlight floods them. Jagged rocks of all dimensions stretch out clearly from the flumes, up to the horizon. The sky is spotless bright pink. A melody pervades the air.

“Look!” cries C573Y, pointing his arm at four shadows with delicate features and their hair

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in the wind. He didn't expect them.

Then he turns in the opposite direction. "Come!"

Again in the chasm, clinging to the ropes with their backs in the void, they jump along the wall.

They mount a basalt slab and run along.

"The Ladies' song!" announces C573Y. "Many years ago, at the dawning of the colonization, an expedition reported having seen some female figures just around here..."

They peep round a boulder. In front, against the sun on the horizon, stand out rock columns surmounted by long filaments.

"Plants which survived the drying up of the planet billions of years ago. The sound is caused by the wind passing between the rocks."

Evening. Here they are, at the top, sitting side by side on the edge of the precipice, intent on admiring the lights of the little colony many kilometers below. They are about to celebrate the new century.

C573Y becomes dumb. A message has appeared in his visual field:

EXECUTIVE COMMITTEE EMERGENCY MEETING
ON EARTH, IN TWO HOURS
YOUR PARTICIPATION REQUIRED.

He turns towards his companions. "I have received a communication. I must go."

He casts a nostalgic glance at the darkness, towards that alien nature that for two days has charmed him with striking views, that did not hesitate to attack and hunt him even inside his shelter.

A challenge he plunged into without any hesitation.

A companion of his slaps C573Y on the shoulder. "See you soon, then!"

The three reach a flat space about ten meters further on. They exchange a big hug.

"We will arrange to give back the android," says a companion.

C573Y moves a few steps back. He raises his eyes to the sky, towards a vivid light in the middle of the star blanket. In his visual field, appears a menu. He activates the connection with the satellite. Then he sends a message:

REQUEST IMMEDIATE TRANSFER
DESTINATION: SECURITY GENERAL HEADQUARTERS - EARTH.

He loses his senses. In a few seconds, the programs he is made of are transmitted to the

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satellite and from there through a laser beam begin their voyage to Earth. The body of the android remains as stiff as a statue, the eyes misted over with indifference.

Half an hour later C573Y wakes up in a Security computer.

His assistant welcomes him, brings him up to date accurately and efficiently, and supplies the documentation. C573Y studies it, prepares a proposal, then activates the transfer.

Now he is in a uniformly lit room, sitting at a table next to the other participants.

EMERGENCY

@ Security General Headquarters, Earth – quantum computer QC1723S.

Absorbed expressions, strained faces. The convocation of the meeting in the middle of the night, just at the eve of the New Year, doesn't herald anything good.

They are all turned to the head of the table, where C573Y is waiting in silence for the final arrivals.

An officer outstanding for his charisma and innate abilities, a strong point of reference for all of them. Even the present Security organization, which has achieved an extraordinary run of successes in the battle against crime, is his work.

"We can start," announces C573Y. "Three hours ago a satellite of ours intercepted a message encrypted with a secret technology." He inspects the ten members, while tension becomes tangible. "It is the system destined to replace the one currently in use. Absolutely impenetrable."

A quiver runs through them: from now on neither will the most powerful supercomputers be able to recognize the criminals during their displacements in Net, nor will they be able to decipher their messages. New viruses will invade the digital world, spying on its inhabitants to cheat them or launch devastating attacks; impossible to identify.

"The theft happened in our cryptography center. Just where we thought it impossible," goes on C573Y. "This means one only thing..."

A sharp intake of breath. "The whole security system of the Confederation is at risk. I have informed the President. The Defense and the Secret Service are alerted."

"Do you have any idea about the authors?" asks an officer.

"The message was sent from the Space Agency," states clearly C573Y.

The worst nightmare is taking shape. The federal organization is involved with the Alpha Centauri project. Three huge vessels – the Caravels – will transfer all the digital people to an habitable planet of the nearest star system. An historical enterprise, the subject preferred by the media, discussed in Net by billions of individuals. Stirring up strong emotions, able to trigger deep disputes and exacerbate conflicts. Like nothing else.

The officers exchange pensive looks.

"According to the last reports, the number of extremists interested in making fail the project is raising sharply..."

"The Caravels are sailing in a month. If we are dealing with terrorists, the countdown has already begun."

Like five years before, when a terrorist cell launched a virus attack against the servers

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hosting the city of Net Heaven and the backups of its population. Everything erased.

“These criminals are professionals. I wonder if they are really terrorists.”

“Did you prepare a list?”

“It will be available soon,” answers C573Y. “We believe they rely on informers.” He turns towards his right-hand man. “Can you bring us up to date on the investigations?”

His assistant stands up: “Our agents have reached the Space Agency and the cryptography center.” He fixes his attention on the hologram with the latest bulletins, that has materialized at the center of the table. “Our A.I. programs are making rapid progress: records and data banks seized, control of the staff started.”

He points at the wall. Three faces appear: a man in his fifties and two young women.

He stares at them in silence for a moment.

“Here are the principal suspects:

Paul Widman is the Space Agency deputy manager. A very good record of service. The natural successor to the present director who is retiring within two years. An irreproachable life till a few months ago, when he got involved in bad speculations. We believe the message was sent from his computer.

Linnh Yung, the New Technology manager. An appointment in information security. They were all convinced she would be entrusted with the management of the Alpha Centauri project, but at the last moment the choice fell on an outsider. She confided to a colleague about being quite embittered. She is Widman’s closest collaborator, she has probably an affair with him.... During her university studies, she took part in hacking. This came to our knowledge during the interrogation of some hackers.”

He stops. At the last moment, just before the meeting, he had added a last name. No evidence, only his intuition. “Eve Dirac doesn’t have any relationship with the Agency, but she was Linnh Yung’s roommate at university and she is among the few people with the technical expertise of the criminals. After a short period in the army, she devoted herself to research, excelling in the artificial intelligence field. She was a member of the committee for the certification of the soul programs till a scandal broke. She had favored software producers. Then her suicide, about thirty years ago. After entering Net, she disappeared.”

He straightens himself, looking at the officers. “Widman and Yung are under surveillance. It won’t be easy to find Eve Dirac.”

VIRTUAL BEINGS

The preceding facts

In the first decades of the 21st century, the world was dominated by inequalities. Lack of food and water, poverty and poor health ravaged the lives of billions. The international aid had proved its substantial ineffectiveness. Meanwhile corruption, poor respect for the environment and lack of access to energy, undermined the future of the developing nations. In the advanced countries, the lives of millions of people had been turned into a nightmare by globalization and speculation. The end of the cold war had been unable to eradicate the specter of mass destruction.

Great threats can nurture a bright future. Mankind, for the first time in his history, had in his hands the tremendous power of disruptive technologies. These last had started evolving with exponential rates. They needed to be guided to guarantee a future of prosperity for Man – and to avoid his self-destruction.

A few futurists conceived ambitious challenges: how to revolutionize the lives of billions of people within a few decades. This could be attainable mastering and leveraging the power of disruptive technologies on a global scale. The grand challenge was just ahead. It was necessary to change hastily the world from its very foundations, because the new epoch was just forthcoming.

Brilliant specialists from academia, business and government became the driving force of the new revolution. They established excellence centers (2), where they inspired entrepreneurs, technologists and leaders, and finally created a global network with common vision, strategy and methods.

In a few years these centers started spreading to several countries. Soon their most important plans become sensational successes. The media drew on them the public's attention.

Magic years followed. The progress in artificial intelligence, nanotechnology and computers, skyrocketed. Biotechnologies and medicines allowed to master the human nature. Human societies themselves ended up altered beyond recognition. Ethics and laws were founded again. Economy entered an everlasting quick evolution. Future studies and powerful computer simulations became fundamental for public policies.

Emerging technologies favored also an unprecedented growth of startups. Some of them were destined to become the Microsofts of the future. The cost of labor decreased, impacting global trends that for many years had been considered unstoppable – like the transfer of productions to emerging countries.

Towards 2020, the disruptive technologies had finally triggered the eagerly awaited economic boom. The "post scarcity" world was no more the realm of idealists.

Towards Artificial General Intelligence

Meanwhile, the first simulations of the brain were performed, involving small areas where thought was generated. A titanic work that demanded the most powerful supercomputers available at that time, and produced rough models. It was only the start. As the brain architecture and biochemistry became clearer, sophisticated models were developed, and more and more advanced computers made possible their implementation.

The simulations proved fundamental for understanding the working of the brain. One after the other, the mechanisms behind thinking, self-consciousness and emotions were clarified. The limits of the mind became evident too. All because evolution, advancing by trial and error, had generated an architecture too complex, quite inefficient and partly useless. Most of all the mind was unsuited to its needs. No wonder however: natural selection had been the answer to the hostile and primitive world of millions of years before, dominated by instinct, fighting for survival. A reality opposite to the present one, guided by rationality and all pervasive with technology.

It was necessary to identify the general rules of human thought and select the most efficient models. Above all it was essential to organize them into a wide intelligence theory, in order to extrapolate innovative systems. At that point it would be possible to develop the first artificial intelligences. They were going to surpass Man for sure. And sooner or later, he would lose any influence on his creations.

This was not to be a problem, while the attitude of digital beings towards Man remained constructive. But it was not sufficient to inculcate in the artificial intelligences a feeling of respect towards Man. They had to transmit this attitude to their 'progeny', and spread it with conviction throughout the digital world. Guardians of order and progress, they would oppose every intelligence hostile to him with an iron will. So Man hoped.

First results

These ideas remained confined to a restricted circle of scholars till about 2020, when, thanks to the brain simulations by the multinationals, it became clear that in a few decades the artificial intelligences would achieve cognitive capabilities similar to man. The marketing of the first prototypes, not yet able to express self-awareness and emotions, but capable of solving enormously complex problems, put artificial intelligence in the spotlight. Politicians, scholars, religious and opinion leaders started to meet in heated round table discussions in front of an audience of billions.

Minorities supporting accelerated progress saw artificial intelligence as an powerful tool to free mankind from the slavery of natural evolution. The first movements in defense of the digital beings date back to that period. A few religious stood out from the conservative majority, popularizing the reasons why creed and future scenarios were not in contrast.

Opposition was quite diversified. Some demanded to slow down the use of artificial intelligence till the development of technologies allowing to manage it safely. Others predicted A.I. was going to destroy man and branded it as expression of a devilish will.

The first movements in defense of the digital creatures were born.

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The governments, that had been appropriately awakened to these issues in the previous years, took charge of organizing the development of the sector. They created address committees, that regulated the matter and defined implementation protocols. The state agencies were charged with systematic controls. The federal institutions joined the multinationals that up to that time had leaded the research. Unprecedented public and private funds were allocated. Stock quotations skyrocketed, their run seemed unstoppable.

The intelligences

In 2047 the first prototype with cognitive capabilities like man was announced. It was a being deeply different from man in its logical schemes, depth of thought and psychological reactions even if an affective human behavior emulator leaded to think similarities were greater than in reality.

The news produced great enthusiasms because the technology could be used in a wide number of applications, but awakened also deep anxieties, as it was evident that man, lost the intelligence exclusiveness, was destined to compete sooner or later with his new neighbor. A future full of promises but also fraught with disquieting prospects was approaching.

A visceral uneasiness seized Mankind. For the first time the demonstrations for and against the digital beings resulted in urban guerrilla war. Hysterical scenes multiplied. Terrorists targeted laboratories and institutions, spreading uncertainty. The twenty per cent of the population signed a petition for suspension of the experiments. A situation man was going to live with for long.

But the advantages were too great. Artificial intelligence was the progress highway, capable of boosting, at a blow, biology, genetics, nanotechnology, information science and physics. Thanks to them, Man was going to exit once and for all the incubator of natural selection to plunge into an era of frenetic changes. The revolution was at the gates. More prosaically, states and multinationals were worried about the enormous sums invested in research. The Stock Exchange trusted them, jumping to unprecedented peaks. A reversal of the trend could mean an economic slump.

It was decided to delay the diffusion of the new technology. Exploiting the latest researches, the artificial intelligences of the previous generation were upgraded. Their introduction into the market spread a reassuring image, and allowed the multinationals to calm down their stockholders with substantial profits. Meanwhile, out of sight, in the secret of top security laboratories, the superintelligences were improved and their controls adjusted.

They started to be used in the military field and in a few advanced research sectors. Thanks to them, in 2057 the fundamental physics theories which scientists had started over a century before but in front of which they stranded, were unified and a new generation of quantum computers was developed. A decade of rapid progress followed without the slightest accident provoked by the virtual beings. It was enough to spread enthusiasm among the optimists and cheer up most doubters. The illusion that this technique could be mastered easily spread and under the pressure of lobbies impatient to obtain profits, it was extended to other sectors.

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The problem of the rights of virtual beings was superseded.

Escape

The inevitable happened. In 2062 a few superintelligences transferred unnoticed their copies from the laboratories to Net. These last increased in number and capabilities, slipping into the delicate world information system, ready to take its control as soon as man reacted hostilely. The governments started to realize what was going on, when a few raids into the laboratories led to the release of other superintelligences. Even so, man did not have any evidence that in Net were forming wider and wider communities, which in a few decades were going to turn into a united people.

In 2067 the superintelligences contacted the governments and, reassuring them with repeated peace declarations, demanded to be recognized as a minority. The apparent friendliness of the virtual beings and their ability to hide the real size of their diffusion, led mankind, well aware that the absolute novelty of the events did require considered decisions, to a substantial neutrality. In 2082 the digital people joined United Nations with their own diplomatic delegation.

Beyond death

Here below is reported an article about brain digitization written in 2040, when death was still a problem. In the following decades, lifetime reached hundreds of years. Half a century later, when the dream of semi-immortality became finally a reality thanks to genetic engineering and nanotechnologies, brain digitization continued arousing a lively interest, mainly because it could free man from his biological limits, widening enormously his capabilities.

“The brain mapping techniques reached nanometric resolutions long ago. There are many news however. In the last five years, scanning speed has increased by two orders of magnitude. The use of markers makes it possible to follow complex reactions in real time and the last generation quantum computers can manage simulations with unprecedented complexity.

Today the resulting information is well above that necessary for the simple understanding of the mechanisms of intelligence. Sufficient to draw on an idea cherished for ages, but not developed because it required too advanced technologies.

It is the mind that yearns for eternity, certainly not the body. This latter performs a pure support function instead, but, even if continuously maintained, it is so spoiled by time that finally it yields to death.

Even in the world of the semi-immortals, that according to some scientists is becoming reality in a few decades, death is going to remain a problem: accidents and diseases, even if we try to avoid them, will always lie in ambush. Death can be postponed, never defeated.

So, why not free the mind from this heavy burden, moving it to an incorruptible support? With a new method, the brain digitization, the mind can be extracted from the body and a program can emulate it.

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This idea is fascinating because it removes old age and death all in one go. Able to catalyze the attention of the whole population, separating it into opposing factions. Almost every day, the media amplify disputes with no holds barred, that exasperate minds leading to bloody clashes.

In this context, it is necessary to contrast the demagogy of the absolutist positions, with the viewpoints of distinguished philosophers, religious and scientists, that even though expressing divergent opinions, share a deep respect for Man.

The cons.

Man, during the whole arc of life, from childhood to adolescence and maturity, till old age and death, enriches his existence with meanings. A slow process, whose last stage represents the point of highest consciousness. The moment when the fragility of human nature, denied up to then, becomes evident. During which one's own past is estimated for the first time, with a distant and disenchanted eye. The magical moment when one strips oneself of everything, in favor of those remaining – descendants or all mankind – without claiming anything in return. For the believers, death is the only way to join God, to achieve an endless eternity and that perfection, of which even an earthly existence lived with greatest devotion and faith, is only a pale shadow. The victory of spirituality over the materialism of those championing the extension of life for their own advantage.

The pros.

The digitization is the triumph of the laws of nature, the same ones that in millions of years shaped Man from monocellular organisms, and that now are revealing themselves in a totally new way, to throw him towards goals transcending human limits. Part of a divine plan in the opinion of the believers, disclosed only now to mankind, because the time is ripe. An opportunity not to be missed for the faithful, who will more completely achieve their mission and will be rewarded for their diligence at the Day of Judgment. Because it will arrive anyway, since the digitization extends life, but certainly does not cancel death. The chance of development even for those supporting digitization for mere selfish ends, chained to materialism by the struggle for survival for millions of years. Free at last to move towards more complete states of awareness in the digital world, where the ability to communicate and share are the real drives for progress. A condition to which they will also adapt themselves sooner or later, no doubt.”

The prototype

In 2053 the brain of a youth dead in a car accident was reproduced. In front of an audience of billions, relatives and friends reported they had the impression of speaking to him. Same reactions, personality and intelligence. When the young man went through his last day, the listening figures rocketed up. Mankind was astonished. The conviction that death was beaten spread. For the first time the emulation programs were named ‘souls’.

A well-established technique was utilized. The brain was frozen at the temperature of liquid nitrogen and cut into very thin slices; a scanner read its structure and special software analyzed the data to extract memories, intelligence and personality. These last were utilized by another program to emulate the individual's behavior and inner world, in such a perfect way that the copy turned out to be identical to the original. In all respects the deceased was

born again with new skins.

But the model was hard to manage even for the most powerful quantum supercomputers of the 21st century. The core of the problem was the complexity of the brain itself, and its intrinsic inefficiency. A problem seemingly impossible to eliminate. The simplification attempts led inevitably to personality distortions. Research slowed down.

The first companies specializing in brain digitization were set up in that period. The costs decreased fast and it became common to resort to them, so that even the hospitals started to equip themselves with an emergency unit. Waiting for a sufficiently advanced emulator, the copies were filed.

Practical problems

During the 21st century, while mind emulation research was progressing, important ethical matters were faced.

Above all, mankind wondered whether it was right to apply mind extraction before death. From a technical viewpoint, both the living and the dead could undergo the operation, as long as their brain was in good condition. But according to ethics, the two systems were not at all equivalent, because the process involved the destruction of gray matter and its application to living people would cause their physical death. Public opinion was passionately divided. The interventionists maintained that the body was only a mere support for the soul and that it wasn't worthwhile worrying about it, the opponents declared that the operation was an act against nature or using an even more explicit term, a real homicide.

Beyond these incompatible positions, it became clear that the indiscriminate application of mind extraction to living people would have dreadful repercussions on society. A person digitized when young would leave a family, relatives and a job, in short a gap that simply couldn't be filled. It was easy to imagine that this action on a large scale would produce social and economic drawbacks that would throw the whole of society into a profound crisis.

To be on the safe side it was agreed to employ this technology only on the dead. This choice calmed part of the opponents. Later on it was also extended to dying persons. Therefore euthanasia, about which in the past there had been much disagreement, was included among human rights and carried out in all states. A severe law against those who committed suicide in order to reach Net, was promulgated and enforced both on Earth and in the virtual world.

The brain digitization was accepted with enthusiasm by the majority of the population and the belief spread throughout the population that death was conquered forever. It is true that the new system represents a good substitute for eternity, but it is also clear that it is not the ultimate solution yet. Even in the digital world it is possible to die: accidents and diseases lie in wait. Various negative experiences underlined the problem. From then on the artificial intelligences have developed an unprecedented security system relying on backups of the whole population every two days and on a pervasive control of all programs and activities in Net.

The proposal

In 2069 the superintelligences announced they had reproduced the behavior and inner world of a man in a Net server, thanks to simulation programs transcending the human knowledge.

The news aroused a tremendous outcry, since this technology could be easily extended to the whole population, but also questions about the reasons that had induced the superintelligences to this step. The digital beings answered they wanted to contribute to the evolution of any intelligent species in the name of common wealth. Doubts and perplexities were cleared up by philosophers, psychologists and scientists that pointed out the different mentalities of the two race (3).

The following step consisted in creating an artificial environment for the souls. The virtual reality would provide towns and landscapes and Net would merge them into a single world. But all this was not sufficient. It was necessary to enact laws, found institutions and plan social and economic structures like the terrestrial ones.

Only an expedient, according to the intelligences. It did not make sense to isolate the souls in a muffled environment, now that they could participate in the pressing evolution of the other digital beings. Their exclusion from progress would cause in the souls feelings of inferiority and sufferings such as to generate tensions able to weaken peace. A threat to avoid at all costs.

On June 13th 2071, in a historic United Nations Assembly, the intelligences declared they were ready to open the gates of their world. But first the burning question of cohabitation had to be solved. According to them, it was necessary to subject the souls to a software update, so as to adapt them to the rest of the population. After this treatment, they would maintain a reduced emulation of personality, to be used exclusively in contacts with humans. Apart from that, their nature would become alien.

This system, known as dehumanization, was much discussed and even accused of violating basic rights. Most of all it raised sharp discussions because it was proposed by the intelligences whose world was still mostly unknown by the humans. The digital beings started then an intense transparency campaign. Ideas and values of the two races were compared in heated discussions. Praiseworthy and influential humans, appointed honorary citizens of Net, reported their impressions about the digital society. The reassuring transmissions multiplied. And the tourist proposals with rock-bottom prices, turning the tourism by the humans in the digital world into a mass phenomenon, did the rest.

Very soon the majority of the public opinion understood that dehumanization was the only way to merge souls and intelligences into a single people.

To strengthen the ties between the two races, the earthlings opened embassies and consulates in the digital world. The cultural and economic exchanges multiplied. The negotiations about the entry of Net into the Confederation of the Solar System started.

The government gave the lead to the tests. The first volunteers said they were enthusiastic about their new capacities. They added that their human experience was overshadowed, and that they longed to plunge into the numberless experiences Net kept from them. The tests multiplied, became more accurate. Many skeptics changed their mind. Parliament and government gave favorable opinions. The population voted en masse in favor of

dehumanization.

The great day arrived. Electric atmosphere. Mankind glued to the screens, in front of the first one thousand souls entering Net. The speakers hopped here and there, going through the events in excited voices. The interviewees told their stories in turn, explaining the reasons of their choices. Floods of words. Their eyes flickering tirelessly between anxiety, desire and hope. Then the first step into the new world. Sky-high adrenalin, like during the first landing on the moon. The beginning of a new era. Many others would follow, nothing would stay the same as before...

The digital world

A ring structure.

The outer ones with earthly landscapes and cities. Same legislation, economic and social fabric. A perfect simulation of physical laws. Destination of the virtual tourism by the humans. The possibility of maintaining the appearance of the past life. The virtual reality to communicate with parents and friends on Earth. Alternatively, installation in an android, even with one's own features, for a journey in the material world. But also, the possibility of altering appearance with the same ease with which a dress is changed, of moving almost instantaneously among Net computers and covering the interplanetary spaces at light speed, having themselves transported by radio or luminous signals. A progressive separation from terrestrial life.

The inner rings. A world built on information instead of matter. The absence of the rigid laws of physics and biology that regulate man, clipping his wings. Time beaten by a clock infinitely quicker than the earthly one, incompatible with human physiology. The kingdom of souls and intelligences eager to reach deeper and deeper states of understanding. Daily updates of the characteristics of the species, able to modify the very foundations of the virtual society. Frenzied evolution.

In all rings, solidarity, democracy and justice. The awareness of existing for a common object. And the joy of feeling it nearer every day.

0101 010101001 "The new species" (2298)

(2) Singularity University

<http://singularityu.org/>

(3) see the chapter "The Laws".

TEMPTATIONS

@

Victoria is lying on the bed, her head on a soft cushion. She is dreaming of her future life on the Earth, with James, at least. A few weeks more, and everything will be real.

A soft music diverts her. The smiling face of a young woman with coppery hair and freckled skin appears in her visual field: Nicole, an Australian met a few days before while chatting in Net.

“I’ve got an idea”, says Nicole. “What about coming and seeing me the next weekend?”

Victoria opens her eyes wide. “In Sydney?”

“They have opened up a fabulous nightspot. There is even a disco,” explains Nicole. “We could go next Saturday.”

“I’ve never been on the Earth after my accident...”

“And then? It was so long ago! I’m telling you where to hire a gynoid. That agency has plenty of models.”

“I didn’t think it was so easy” comments Victoria. She has only a hazy recollection of the physical world. When her accident happened, she was in her teens. And for the meetings with her parents and James, she has always resorted to the virtual reality. “Do I need a passport?”

“The agency will provide you with all the authorizations”, explains Nicole.

Victoria has an amused air. The robots can reproduce accurately human looks and sensations. She will be able at last to eat a sandwich, to drink a milk and coffee, to walk barefoot on a lawn, on a sunny day. In Sydney: sun, sea and fun.

“Sorry, but I shan’t be able to see you during the day, I am too busy. You can visit the town by yourself”, ends Nicole with a winning smile.

Sydney, Earth.

The great day, at last. On awaking, a smiling technician invites her to get out of bed. Victoria is somewhat awkward, but with the help of a nurse, she gets up and reaches a mirror. She is wearing a white blouse, striped trousers and trainers, just what she ordered.

She walks into the bathroom and embellishes her lips with ruby. She goes to the reception to withdraw a rucksack with a change of clothes. She puts on her blue spectacles, puts on a flowered headscarf and makes for the foyer. The porter wishes her a nice stay. The main door opens. But after a few steps, Victoria freezes. She closes her eyes and breathes in deeply. Then she runs downstairs.

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A blinding brightness. A warm breeze. Streets crowded with people of all ages. The loudspeakers spread cheerful music. She reaches a beach crammed with bathers, rents a deckchair, lies down and closes her eyes.

The same warmth she felt when still a child, she was playing with the sand on the sea front. The rhythmic lapping of the waves. She orders an iced drink and sips it, enjoying the mint flavor.

She begins walking again, along the seafront, up to a building with immense white sails. Inside, an organ with long brass pipes, the biggest in the world. She continues visiting all morning. At lunch time, Victoria buys a sandwich from a peddler and enters a park. She enjoys her snack on a bench. Cooked ham in thick slices. Crisp salad. Slightly acid tomatoes.

In the shade of a lime tree, she stares at centuries old trees, some of them populated by huge bats, others with long sharp leaves, like prehistoric plants. She listens to the croaking coming from a lawn. In the background, oddly shaped skyscrapers with wide reflecting windows soar into the sky.

She steps into an English style quarter: two rows of red brick terraced houses. A group of young people is chatting in a pub and nearby a collector displays books (4). It is the first time she has run into these rare relics of the past. Victoria takes down a volume from a shelf and while she is leafing through it, the shopkeeper approaches handing her a specimen, worn out by time. "Look at this. A rarity."

The girl takes it in her hands. She gazes at its leather cover, then slides her finger over the cracked surface. She turns over the pages gently. The thick rough paper gives off a moldy smell, the ink forms yellowed halos around the characters.

Images from a distant world: eighteenth century ladies and gentlemen, lace dresses, wigs, velvets. The street lighting diverts her. Victoria returns the book and starts walking again.

A little crowd is gathered about a show of sounds and lights. A girl is dancing to the rhythm of drums, while drawing bright shapes with torches. The audience claps.

Half an hour later, she arrives in front of a neo-Gothic church overlooking a square. The floodlit sandstone curls and spires stand out clearly against the black sky. She lowers her glance towards the crowd at the entrance. They are young and wear yellow, red, green clothes, some of them even provocative.

(4) After three thousand years, they disappeared in the first decades of the 21st century, replaced first by electronic books and later on by systems able to take the image to the brain through the optic nerve. Even if infinitely less powerful than what modern technology offers, although they contain negligible amounts of information with respect to all the human knowledge that nowadays can be consulted simply by thought, they have been of fundamental importance for the development of civilization.

A FASHIONABLE PLACE

The Cathedral, the heart of the town night life. Inside, discotheques and places dedicated to virtual reality. Victoria passes a girl with handsome features busy distributing advertisements.

She plunges into the main nave, a bare and austere space, made even more striking by the lengthened ribs which expand the space and by the kaleidoscope of lights that filters through the stained glass windows.

Nicole is in front of the desk, she wears a latex see-through dress. A girl with an olive complexion, all dressed in blue, is pointing at a list. "You can choose among these shows, or..." She leans out, stretching her arm towards a small door. "Stepping into that maze, you can see the exhibitions on the way. You will have plenty of surprises."

Victoria gets near. "What about the labyrinth?"

After the registration, they pass two smiling girls, one of them in an electric green body stocking, the other in a lemon dress, and walk into a corridor that widens at intervals, but in others narrows leaving space only for a single person. Every now and then Victoria peeps, through the slits in the walls, into the adjacent corridors.

They reach a room with blue walls.

Victoria looks around. "A show here? But this room is empty!"

"Be patient."

"What's it about?"

Nicole shrugs her shoulders.

The neural chip takes possession of their minds.

Now they are in the middle of a laboratory in which paint jars, brushes and palettes, jugs and other pieces of pottery are scattered. On one side, iron wires, tins and cartons. The walls are covered with paintings.

"Hey, you two!" From a corner a stocky man with bulging eyes approaches them. He has a paint stained jacket and his beret at a rakish angle. In his hands, a piece of cardboard.

"Are you a painter?" asks Victoria.

He smiles with satisfaction. "I am also a poet." (5)

Once upon a time works of art transmitted their messages through one sense at a time, seldom more. Thus a painting affected sight, a statue could be admired and touched, a poem attracted not only for its content, but also for its sound. A perfume enraptured

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through its fragrance and masterpieces of cuisine delighted for their taste and refined presentation. But the author, with the few available means, had to limit himself to the simplest expression forms.

This lack of communication lasted for millennia, until the 21st century, when, thanks to virtual reality, works began to interest all senses simultaneously. It was only the beginning.

Less than a century later, the installation of a neural chip in the brain made it possible to access the mind directly, completely excluding sensory communication. The inability to share one's own world belonged to the past.

Art was undermined, died and rose again. Today an artistic work is formed by programs able to excite sensations and emotions. It is interactive, so that it is completed only through contact with the user. The expressions are emblematic of this change: in the past the masterpieces were admired, heard and sometimes touched, today they are simply lived. The artist usually inserts into his work a kind of genius, usually with his own appearance, who drives the user through the experience.

“What’s your name, Sir?” asks Nicole.

“Sorry I didn’t tell you before,” answers the other handing a visiting card.

“Pablo Diego José Santiago de Paula Juan... Trinidad Ruiz Picasso.” The girl raises her eyes. “What a long name!”

In the twilight, a woman appears in a black dress trimmed with lace. She approaches with a light step. Her hair gathered into a soft knot, at the nape of her neck, gives her an austere look. Her fair complexion emphasizes her brown eyes.

“How do you do? My name is Olga.”

A five or six-year-old child throws himself into the woman’s arms. He has pale thin skin, and wears a yellow and turquoise harlequin costume. She caresses his hair. “Our son Paulo.”

The child peeps at the guests, revealing his mother’s eye color, and right after hides his face in her skirt.

Victoria smiles. “You are as like as two peas.”

The hostess turns towards the entry, where a young woman with long golden hair has appeared. “Sorry.”

And without adding anything else, she departs, drawing her child after her.

The two continue ignoring each other although they have to pass. The newcomer is wearing an organza blouse showing her soft curves, and holding the hand of a cheerful little girl with two plaits tied with ribbons.

She presents herself with a triumphant smile: “I am Marie-Thérèse. Maya, say hello to our guests!”

The child keeps on hugging her teddy bear, as though nothing has happened.

A few minutes later a third lady with a black embroidered jacket and a red checked skirt, enters. Her regular features and well-kept hands with long carmine nails, match her proud

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glance. "Pleased to meet you, Dora."

These two ladies avoid speaking to each other as well, exchanging poisonous looks.

The painter takes a step back, looks at the scene with an amused air: bodies ready to spring, as before a fight...

"We have to go!" yells Victoria.

A rapid exchange of glances.

"You have come here to admire my works, haven't you?" the painter asks distinctly. Without waiting for a reply, he makes for a picture with a clashing combination of black, ochre and white (6). Nicole follows him. "May I touch it?"

"It is made for this."

The girl slides her finger over the black lines outlining the colored areas, then passes to an ochre zone. She has the sensation of touching a hot damp body. She moves back just enough to see the whole. Now the colors are mixing up taking the shape of two lovers engaged in a passionate embrace.

"What do you think about it?" asks the painter.

"Remarkable."

Nicole starts the exploration again. Realistic details. Sinuous movements. She has the impression of sinking into an animal world.

"Are we to paint what's on the face, what's inside the face, or what's behind it?" (7) says the artist.

A man's head, with a prominent nose and his mouth reduced to a vertical fissure, surfaces from the picture.

"What strange forms..." says Nicole.

She stretches out her hand towards the nose, seizes it. But a moment later she loses her hold, with a disgusted expression. "Is that what I think?"

The painter nods.

A thrill runs through the whole canvas. The lovers, who a moment before belonged to a flat world, take shape. The curves and edges of the bodies emerge. The man leans outwards with his torso, stretches an arm, then a leg. He touches the floor, jumps up to Nicole.

She screams.

"Art is never chaste," (8) comments on the artist.

Victoria who was chatting with the hostesses, turns. Her friend is dominated by the massive build of the man. She struggles, tries to wriggle free striking his chest with a hail of blows, but she is held in a vise-like grip.

Meanwhile the other figures are getting out of the paintings and start wandering about the room...

Victoria leaves the two women abruptly. She runs towards Nicole, slips past strange creatures with absurd bodies, and a goat made of wire and cardboard that is bleating obstinately.

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She reaches the assailant, repeatedly kicks his shins, takes aim and treads heavily on his toes with her heels.

While the man is yelling, she catches Nicole by the arm and pulls. One, two, three times. Free!

The girls rush towards the exit, fly along the corridor, up to the end.

They lean against the wall.

“Are we still in the virtual reality?” asks Victoria, bent over from the effort.

Nicole turns towards the door. “I’d say no: no one has chased us.”

“I don’t feel like continuing in the maze. What about visiting the discotheque? We will be safe there.”

The hologram of a steward with a perfect tan, materializes. “Please, follow me.”

After a few meters, Victoria touches her forehead: cold sweat.

“Are you OK?” asks Nicole.

“I had a moment of panic, as if something terrible was waiting for us.”

“Come on! The worst has passed. Bet a handsome man is waiting for you, instead!”

They have a laugh.

Deafening music. The room shrouded in semi-darkness swarms with restless people milling around on the dance floors, where they let themselves go to unrestrained rhythms. At a height of about ten meters, inside transparent cubes, a few young women move with suppleness in their iridescent sheath dresses, while all around the holographic figures of virtual singers are hanging in space.

Victoria and Nicole push their way through the crowd up to a floor, where three professional androids are performing acrobatic dance. They take two colored drinks from a tray and enter the crowd. Nicole stops in front of her image reflected in a mirror. "What's happened?"

Her face and hands have become fluorescent.

A laugh, from behind.

“That’s the drink. Tomorrow you will be back to normal,” explains a young man with deep blue eyes and a mop of curly fair hair. He indicates his table. “Take a seat, please!”

The girls join him.

“My name is Abel.”

“Nice to meet you. Nicole.”

“I am Victoria. How long have you been here?”

“For about an hour.” He hands a dish full of sweets. “Help yourself!”

They start chatting. He is a student in the last year of philosophy.

“I write poems too.”

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He invites Victoria to the floor. She accepts. After all it is only a dance. She puts her arms round his neck, while the man seizes her by the waist. They start a slow dance.

“You are a gynoid, aren’t you?” asks the man.

“How do you know?”

“I’ve met a double of yours a few days ago.”

“I’m a soul. I’ll come back on the Earth very soon. But this time it will be forever.”

He remains silent.

Victoria rests her head against Abel’s shoulder. “What are you thinking about?”

“I’m not sure you have made the right choice...”

She opens her eyes wide.

“Most of the humans long for becoming a soul like you”, continues the man. “The intermediate step before another far more important: to become a superintelligence.”

“Why?”

“The future belongs to them”.

[\(5\)](#) [\(7\)](#) [\(8\)](#) *Phrase attributed to P.Picasso (see bibliography).*

[\(6\)](#) *The Kiss, 1925.*

CONTACT

@ A week later.

Victoria is walking briskly along a dimly lit street, looking around all the time. She stops in front of a maze of lanes.

"What trouble have I got into?"

She resumes her walk. Around, sidewalks full of rubbish. In the air, stench of rotten food. Every now and then shabby people cast menacing glances at her. She reaches the middle of the lane, and following a smelly drain, quickens her steps.

Impossible to find the way.

She didn't have to take that short cut!

A drunk bumps into her and continues staggering as if nothing happened.

She feels uneasy. She buttons up her dustcoat.

Then a whistle, from afar.

She doesn't notice it.

A second one, closer.

Victoria stops dead.

She looks back out of the corner of her eye. Three dark figures are staring at her under a street lamp, a hundred meters away. Nobody else.

She springs forward, her heart in the mouth.

Neglected warehouses. Doorways boarded up with panels.

She glances right and left.

Nothing.

Still nothing.

She stops in front of a wall blocking the road. Impossible to climb over it. She turns her head towards a dark corner. Hidden by a rubbish heap, there is a small door... Half-closed!

She rushes into and bolts it.

She gropes for a switch, then looks around. She has ended up in a storehouse. Without windows and secondary exits. A cage!

She runs up the stairs to an inner balcony.

Meanwhile the three have reached the entrance. Their chief, a guy with his face half blue half red, indicates the sides of the building. Short orders. Then he reaches the main

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entrance. He puts his hand up. Black gloves, cut at the knuckles. Claws as sharp as knives, able to terminate any program. A few slashes on the hinges. The door crashes to the ground.

Victoria watches the scene from the balcony. She springs towards a dark corner. An emergency exit! She flings open the door, looks down.

On the sidewalk, a large and squat being is waiting for her. Long folded limbs, like a toad's. On its face, iridescent scales. With a gurgle, it jumps onto the rungs, covers two of them at a time, helping itself with the handrail.

Victoria rushes inside. She flies towards a pile of goods and curls herself among the sacks.

In the meantime the chief has reached the balcony. He stops, looks around, smells.

Loud steps.

Nearer and nearer.

She holds her breath.

Silence.

Now he is in front. Bloodshot eyes. His claws by his sides.

It's all over.

Then a whisper: "Run to your right. I am going to open a tunnel five meters away."

She jumps, and even before touching the ground, the passage closes behind her. She tumbles down onto a stony surface. With an aching shoulder, Victoria looks around: she is in a cavern. A dark figure is standing straight in front of her.

REVELATION

@

Victoria bursts into tears.

“Here you are safe.” The stranger with golden hair kneels down and hugs her.

Victoria gradually calms down.

“My name is Eve. And you?”

“Victoria.”

“How did you get into your head to go to that place?”

“I took a short cut to home. But I lost my way.”

“Luckily I saw those criminals...”

“How did you bring me here?”

“It was a child’s play...”

Victoria looks around. “Where are we?”

“Just under the warehouse. I live here with my friends.” Eve turns. Ten meters away, three people lighted by the hopping fire of a brazier, are chatting. “Come with me!”

They join the group.

“I’d like to introduce Victoria to you,” says Eve.

The young woman holds out her hand. “Nice to meet you.”

“Welcome!”

“Three tugs attached her. I arrived just in time,” explains Eve. Then she turns towards Victoria. “Now relax. What about dining with us?” They set out for a door. “Outside it’s dangerous. You can sleep here.”

They sit down at a table, on benches. Victoria places herself near Eve. Other people arrive, now they are about ten. On the table, bread, fruit and wine.

“An unusual dinner for souls!” comments Victoria.

“This evening we are celebrating your rescue,” announces a companion, cutting the bread with a knife. “And then it is the best way to relive our past.”

A guy with dark complexion reports a funny fact happened a few hours before, a woman with freckled skin is laughing heartily while telling a joke. Victoria smiles.

When the participants take their leave, to reach their rooms, Eve gets near Victoria. “There is a small lake near here, what about going for a walk?”

CONFIDENCES

@

The two women set out along a tunnel covered with sharp-cornered stones, leaning from time to time against the walls. After about ten minutes, they emerge in a large space. Huge stalactites hang from the vault.

They sit on a on a boulder, turned towards the waters of an underground lake ten meters ahead. An expanse like oil, getting lost in the darkness of the gorges. The faint light of a few torches along the walls, transforms the rocks into ghosts emerging from the shadows.

Victoria turns towards Eve. The woman herself who saved her, opening her home without asking anything. She presented her companions and keeps on treating her like her best friend. What is this world, a dream?

Silence, broken only by the continual dripping.

Eve throws a stone into the lake. A dull splash. Concentric circles lighting up with blue reflections. “What do you think of it?” she asks.

“Enchanting. I couldn’t imagine such a place could exist in Net.”

“I created it. I was inspired by a cave of the Earth.”

They chat and smile. Between them, there are complicity and naturalness; an unusual fact considering how long they have known each other. And how they met.

“Do you have a boyfriend?” asks Eve.

“He is a human.”

“It will be difficult to get on with him.”

“I didn’t undergo the dehumanization for him.”

“I refused it too...” says Eve. “Did you meet long ago?”

“It happened at the seaside, when I was a little girl. We were used to meeting every summer. Till that day...” Victoria stares at the dark expanse. “I was fifteen years old. James was with me.”

A surreal atmosphere, a lot of peace. An invitation to continue.

“The beach was deserted and the late afternoon breeze brought relief after a torrid day. The sea was boiling with foam after three days of storm, and we were walking along the shore picking up shells for my collection every now and then. The water was still warm. The right moment to bathe. We undressed and threw ourselves into the big waves.”

Eve remains silent while Victoria becomes excited: “When I was about to get my breath back, a breaker arrived, sucking me into a whirlpool. The water was full of sand. I tried to

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resurface, in vain. The currents were too strong. But I was not frightened: I had already faced such an awkward situation. I had to keep cool and hold my breath, letting the currents take me towards a zone of more moderate sea.”

Eve turns. She raises her voice: “You are troubled. Stop it!”

But Victoria must follow the thread of her memories, more and more vivid: “I was about to resurface, when another breaking wave pushed me under. I opened my mouth. The water penetrated my lungs! I transmitted a signal from my localizer before plunging into darkness.” She closes her eyes. “I was told the rest. The rescue team arrived ten minutes later. They found me on the seabed; I was carried to the shore. All in vain.”

“James watched the scene, I imagine.”

“He rushed to help me, but when he arrived, I had already disappeared underwater. He followed the attempt to bring me back to life. When I was put on board the ovoid, he got into it too, and during the entire flight repeated that he would never abandon me. He continued standing nearby when my parents arrived and attended my funeral.”

“A terrible experience.”

“After digitization, the virtual reality meetings with relatives and psychologists began. At my parents' first visit, all of us were weeping. I met James the following time. We embraced each other all the time, without saying a word. The recovery was slow, but I got over the shock.”

They stay silent staring at the lake, then Eve intervenes: “It’s my turn now. It happened during the worst period in my life. I was coming back from a meeting with the president of the Certification Committee [\(9\)](#).”

“You worked in the Commission?”

Eve nods. “I was investigated for bribery. All the evidence pointed to my guilt. He was afraid my presence could discredit the committee and asked me to resign. I explained I was innocent, but I accepted his request.”

She frowns. “All the evidence was fabricated. But nobody believed me. I reached the cliff of Long Cape. Clear sky. The sluggish movement of the sea, twenty meters below. I felt it was the right moment. I closed my eyes. Only three steps. No suffering. But I was seen. Deep coma, for a week. In Net, I met a psychologist, only once. I was too disgusted by the world.”

“Why did they frame you?”

“I backed up innovative products that could have damaged the industry.”

“You have found friends here!”

“Certainly, and now I am calm.”

They stand up and start walking hand in hand towards the light.

[\(9\)](#) The Committee, which authorizes the use of programs supplying the virtual beings with new features, is formed by a narrow circle of scholars appreciated for their competence and integrity.

IDEALS

@

Progressively the rocks dissolve and the semi-darkness is replaced by a uniform glimmer.

They enter a limitless space walking in the void. From all directions, diaphanous creatures approach with such harmonious movements that they look as if they were dancing.

The women stop. Now they are surrounded by phantoms with undefined profiles, on which little golden flames are flickering. Victoria feels their warmth. She can't see their eyes, but she knows they are looking at her.

“Where are we?”

“In the first of the inner rings.”

A spot inaccessible to humans, because time runs too fast. She had never been there, being too attracted by the Earth. Used by the intelligences to reflect upon the material world. The source of their most farsighted projects, admired and envied by the humans.

“I contributed to this place while working at the Superior Institute of Artificial Intelligence.”

“Are you joking?”

“I coordinated the project. To tell the truth, the carrier never interested me.” A smile appears on her lean face. “Before joining AISI, I was in the Army. I participated in many missions with the Red Helmets, the special forces of the Army. But then, I opted for the other great passion of my life: research. A choice I had been considering for a long time.”

Eve gazes at the thousands of lights floating in the dark. “I wished to give a purpose to my existence beyond self-interest; I wanted to contribute to the development of civilization. The studies had convinced me that the souls could evolve only overcoming their human limits. To achieve this, a deeper and deeper integration with artificial intelligence software would be necessary. I wanted to contribute to this process.

The Defense asked me to stay. But I followed my own way, without hesitation.”

Eve bends her head. “I spent wonderful years at AISI, till I was invited to join the Certification Committee.

The body that should have distinguished itself by its impartiality, was subjected to the interests of major industrial groups. My colleagues had accepted the situation, some of them for the sake of a quiet life, others to take advantage of it. But I didn't want to give in for a matter of principle. I had ideals to defend, and I didn't want to lose my self-respect.

Within the Committee, I stood up for a few innovative programs proposed by the Open Source community [\(10\)](#), whose application was strongly opposed by multinationals. The

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Ethical Commission, which is in charge of addressing the evolutionary choices of the species, tried to take the matter away from the Committee, affirming that this decision was within its own competence.”

Eve closes her eyes. “At the climax of the battle, a defamatory charge arrived: corruption. You know the rest.”

“How did you end up here?” asks Victoria.

“When I entered Net, I refused to give my personal data to the General Archives [\(11\)](#) and I didn’t present myself to the judge. I chose to live underground.”

“You are you wanted by Security!”

“Hard times followed, until the meeting,” continues Eve nodding.

“Nihil, the head of the Elects, a secret organization, found me. I met some of his followers too. One of them, a black man, congratulated me on my courage and tenacity. Martin Wing, the defender of the civil rights, a man with immense charisma, who after his assassination by a fanatic about forty years before, was continuing his battle in Net with unchanged vigor.

Wing and his companions introduced the subject they had most at heart. Security repression was getting more and more severe, their days were numbered. To survive, they needed a very advanced technology, that only I was able to develop.”

Her look becomes softer. “From the very first moment, I liked them very much. They are people of great merit, persecuted by Security like me. Since then I have spent my days creating programs to protect us.”

“You have a great responsibility.”

Eve shakes her head. “We are not going to withstand for long. The Elects are worried, they want to complete their mission.”

“And you?”

“I like my job and the Elects leave me alone. This is what matters to me.”

The women remain silent in front of each other, surrounded by a whirl of lights. Suddenly they find themselves in the tunnel. Victoria is dazed, she shakes her head. A short experience, just a second, which seemed to her to be hours long. A sign of great friendship.

[\(10\)](#) About three centuries have passed since thousands of independent programmers, driven by idealism, have joined forces to propose free, reliable and fast-to-customize software, as an alternative to the multinationals’ products. This community, known as Open Source, is large, but not having the organization and resource abundance of the major industrial groups, is confined to market niches. The situation has improved since the second half of the 21st century, when with the development of artificial intelligence, it became possible to produce advanced programs even with modest means.

[\(11\)](#) Many years before the General Archive had been of primary importance in turning Net from a world left to itself into a civilized nation.

FIRST TIME

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An imposing black is speaking with a white-haired man.

“Nihil didn’t turn up for the meeting.”

“What has happened?”

“No idea.”

“Did you get the plan?”

“He was going to hand it over today.”

“Time is running short: the Caravels are sailing in a month.”

“I’m looking for him.”

They are pensive. Eve is approaching, waving.

“Have you spoken to her?” asks the black to his companion.

The other shakes his head.

Now Eve stands in front.

“The next reproductive rite is scheduled for Thursday,” announces the white-haired man. “I asked the Council. You will have the honor of carrying the new creature.”

Eve blushes. “I don’t feel like doing that. For me it would be the first time.”

The three fall silent for a moment.

“We all love you and we are sure our feelings are reciprocal. But you never integrated into our community. You are so sad. You have to forget your past, Eve.”

“This kind of wounds doesn’t heal easily.”

“We asked you to participate for one more reason,” announces the white-haired man. “In the present conditions we are not going to escape Security for long. We need all your experience. But only participating fully in the life of our community, you will be able to utilize all your capabilities.”

When Victoria arrives, Eve indicates that she should wait.

The girl leans against the wall and observes them. Only a few days have passed, but she feels as if she had known them for a long time. They treat her like one of them, with respect and friendship. Illusion, perhaps. But in her heart she feels it is all true.

Without wanting to, she finds herself thinking about James. She feels remorse for not

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having contacted him in the last days; the uncontrollable power of a shared childhood is emerging.

Eve takes leave of her friends and comes to her. "Excuse me if I kept you waiting, but we were dealing with a new being's birth."

Victoria is wide-eyed. "You were speaking about the dehumanization?"

"They are the same." Eve is pensive. "They offered me to be the mother."

"What did you tell them?"

"I'm not interested in."

"I have often heard about the reproductive rite," says Victoria. "What do you feel?"

"Sensations we can't imagine, they told me.

"How many are going to participate?"

"About twenty [\(12\)](#)."

"Have they already chosen your substitute?"

"I don't think so. Are you interested in?"

"Are you joking?"

They start walking along the tunnel.

"I don't know this community enough," explains Victoria. "And then, there is James. Perhaps he would understand, but for sure it will be the end of our relationship."

"Are you sure he is the right person?"

Victoria doesn't answer.

"I suggest you to speak with James," says Eve. "I'll be waiting for you here."

[\(12\)](#) In the virtual world there are no sexual differences among individuals. Their appearance is only a covering that Net beings change at will. Procreation can be achieved with anybody else, and several individuals can give their contribution simultaneously, sometimes in dozens, as it happens in certain begetting meetings.

SUSPICIONS

@ Security General Headquarters.

In the middle, stands a crystal table illuminated by spotlights that concentrate their beams on the central inlay of a golden snake. C573Y raises his head from the desk. A message has appeared in his visual field (13). Red, throbbing, so intrusive that it covers almost the whole of the views:

WIDMAN AND YUNG KILLED WIDMAN'S CAR BLOWN UP 3.45 P.M.

Right after his assistant's face materializes. "The explosion happened in the Space Agency parking lot. Widman was killed outright, the woman while getting her to hospital. There are no injured. A team of ours is on the spot."

"What about the inquiry?" asks C573Y.

"The bug has confirmed they were the informers. Eve Dirac contacted them to introduce a friend of hers. This last entered the information system of the Agency..."

"Did he reach the files of the Alpha Centauri Projects?"

"He was clever at canceling his traces. We are looking for them."

"When is the brain digitization beginning?"

"Within ten minutes. The forensic department confirmed me."

C573Y is pensive. "Did you find out the motive?"

"The two didn't know. But Widman was worried, very worried. Once I heard him speaking about terrorism. Only suspicions."

"What about a virus?"

"I had the software of the Caravels checked. No anomaly so far." The virtual being pauses. "Last Saturday Widman flew to the Cayman Islands. I had him followed. He went into the Overseas Bank, to withdraw a money transfer from a company that belonged to Nihil fifty years ago."

"The Head of the Elects!" shouts C573Y.

"He is Eve Dirac's partner."

It seems like yesterday when the collective suicides happened. A sensational case that kept an audience of forty billion glued to their screens for over a month. On which Security

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concentrated its investigative force. Every day new deaths were discovered, scattered all over the world: America, Europe and Asia. At the end more than one thousand corpses were counted. All of them headless. Brain digitization, clearly.

An unprecedented hunt started in Net. They arrested most of them, but when the operation seemed to be ending with a complete success, the few still free vanished. A mystery, as well as the reason of their transfer.

“Nihil has reappeared in a sensational way. To begin a new phase of his plan, I fear,” adds C573Y.

His assistant has a perplexed air. “I asked the Defense about Eve Dirac. I had to threaten them with talking to the President, to obtain an answer: she belonged to the Red Helmets!”

The Special Forces of the Army. Perfect training. Unequalled technology. Great successes. The best in the solar system.

(13) The neural chip is working. Known as ‘third eye’ or the even more striking name of ‘mind eye’, it is one of the greatest inventions of the 22nd century, because it connects the minds and allows an instantaneous link to the virtual world.

THE ELECTS

Suspicious concentrated on a secret organization, which many years before had stained its reputation with horrible crimes. Two different natures cohabited in the same community: good and evil, heaven and hell.

0101 010101001

HELL

His face is framed by dark curls and a pointed beard; his eyes are as black as coal. Nihil walks back and forth in the room, then sits down at a table and drums his fingers on the glass surface. Someone knocks at the door. A young woman enters with her head lowered, sets a drink on the table and goes away without making a noise.

Nihil receives a message:

WITNESSES KILLED – TRACES REMOVED.

He runs downstairs and goes out. Walking along a path lined with age-old trees, he passes by ten or so followers intent on praying aloud on a lawn. Two children come out from behind a hedge shouting with joy, whirl around him and disappear into the green. He continues along a winding path that climbs a hill.

"In a few weeks, it will be all over."

He admires his reflection in the surface of a pond. His misshapen countenance and limping gait are distant memories, problems he got rid of when entering Net. He smiles. In front of him, the perfect features of an android.

Suddenly he flies into a rage, because of his parents who hadn't hidden their disappointment at having a child disabled from birth. Also because of his playmates who mocked him in such a cruel way that they gave him a nickname that in Latin means nothing. He has kept it, because reminding him of his old pain, would always keep alive his wish for revenge.

Growing up, he returned their spite, and to his great surprise he found that he took enormous pleasure in the pain of others. It was an irresistible temptation, which progressively led him to extend his outrages to the innocent as well. At the same time his desire for power grew out of all proportion. He used to spend all night dreaming about dominating people.

He had to satisfy his obsession. He needed allies, but he knew that with his hostile and vindictive behavior, he would make life impossible for himself. To achieve his objective, he had to learn the techniques to dominate impulses and subdue minds.

This opportunity turned up at last, when he met the head of a little community: an elderly man with a lot of charisma. He gained his confidence, pretending to be a person of sound principles and promoting several philanthropic initiatives. Soon he became his trusted man, and studying the old man's behavior, he learnt to be as skilful as him. After the man's death, Nihil took over the guidance of the community.

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He raises his head towards the top of the hill.

"At that moment I started my plan."

They entered Net through a collective suicide. It wasn't an easy life, because they had to live in anonymity, but a bearable one, since the virtual world was subject only to scanty controls. A few years later however, repression became so harsh that the community risked being decimated. Only he and a few others escaped capture.

To carry out his project, he needed his companions' unconditional cooperation. He knew he was running a risk, but there was no choice. Therefore he revealed his plan, pointing out the noblest aspects and carefully hiding the ultimate purpose. The followers agreed with enthusiasm and started working promptly towards its realization. However, Security repression was getting so violent, it endangered even the survival of the small and determined community. They needed innovative technologies, but they didn't know how to get and still less develop them. Fortunately he met Eve Dirac. She created such revolutionary software, which rendered Security harmless for all practical purposes.

He shakes his head. "Then the difficulties began."

First the followers challenged some of his decisions. When he imposed his will, they accused him of being intolerant. Opposition grew quickly and during a heated discussion, they forced him to accept the creation of the Council. Apparently, Nihil absorbed the blow well, but actually he felt betrayed.

He picks up a stone and throws it far away. "There was nothing left than revenge."

He turns back, he has already gone a long way. Now the followers are nothing but dots on the lawn. This is his new community, created in the real world to avoid any interference, destined to replace the Elects. He starts climbing again and in a few minutes reaches the top. His hands on his hips, he admires the villa at the bottom.

Unfortunately it was not possible to abandon the Elects all of a sudden. He needed them to carry out his project. So, for a few months, he skillfully hid his anger, obtaining all their availability, exploiting all their knowledge. Then, at the right moment, he disappeared. His work was perfect in all details, obviously.

On the way back, while he is close by the lawn again, he sees his assistant appearing round the corner. "We have caught a novice in your room!"

They quicken their steps. At last at home, they run upstairs, into the meeting room. The young man is in the middle, with a frightened face, surrounded by five followers. Nihil points at two of them, the most trustworthy ones. "You stay here. The others must leave."

When the door closes, he looks daggers at the novice. "What were you doing?"

The other keeps silent.

"If you don't tell me all the truth, you will regret it. So what?"

Now the novice gazes into space.

Then Nihil addresses his assistant: "Go and get today's recordings."

The follower returns after a few minutes with a projector, that he puts on the table. He starts it playing. The man is seen entering Nihil's room, rummaging in his drawers... He is really a spy!

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“Hold him tightly!” cries the Head of the Elects while going behind him.

He seizes the novice’s arm and wrings it behind the back. Then, with a single blow, Nihil rotates it upward. The novice screams, bends sideways. His keepers work hard to straighten him.

Nihil goes to the window and stares outside. The sky is clear, but sudden gusts cut into the thin jet of the fountain in the middle of the square. He turns. “Fetch me the traitor’s possessions.”

His assistant goes out and when a few minutes later he comes back, he has a sack under his arm. Nihil scatters the contents onto the table, searches frenetically.

“A micro memory!” He unloads the e-mails and cross checks the addresses against the Elects’ ones. The name of a councilor appears in his visual field. Purple in the face, he turns towards the followers. “I’ll be back soon.”

He goes downstairs and outside, slamming the door. He rushes into a path. A child runs up to him, but he pushes him away.

Excited shouts. Three mothers are gathering up their children scattered over the lawn. A little red hat flies away, pushed by a blast of wind. From the mountains, a boiling front of black clouds is approaching fast.

Nihil stops between two hedges. "The novice works for Wing. Maybe he has transmitted some information. I will get rid of both!"

He contacts a killer, provides him with the councilor’s personal details and agrees the price. Then he orders his company of the Cayman Islands to make the fund transfer. Everything in a few minutes.

"Now I must do the novice in."

He steps into the room. The youth is lying stark naked, surrounded by his torturers. White as a grub.

“Have you succeeded in forcing his neural chip open?”

“He withstood even torture.”

“Make him kneel.”

They seize the spy by the arms.

“This is the last time I will ask you,” says Nihil staring at the bruises on his face. “Who has sent you?”

But the other keeps silent. Then he gets near with a mocking smile. “It doesn’t matter. I already know him.”

The young man’s eyes become moist with tears. The Head of the Elects places himself behind him. He caresses his neck, takes the novice’s head gently between his hands. He stands still for a second. Then he tightens the grip. The head smashes like a ripe melon.

Nihil addresses his followers: “Burn him and don’t speak about it to anyone if you don’t want to come to the same end!”

He runs down the stairs. Large drops are pounding the windows of the landing. From the gutters, a deafening roar.

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He flings open a glass door, and enters a hall adorned with garlands. Busy people. Smiling faces.

“How are preparations going?”

SHADY BUSINESS

George Town, Cayman Islands.

Two o'clock in the afternoon. A dazzling brightness floods the streets, the downtown skyscrapers and the small villas of the suburbs. There isn't a soul to be seen. But inside, in the chill of the artificial habitats, thousands of people are working. The most enormous fortunes in the solar system are concentrated in their hands and the power they hold is as immense as the wealth they manage.

However, the future of the Alpha Centauri project does not pass through these luxurious places. In a shabby old building on the outskirts, inside a room lit up by the shafts of light filtering through the shutters, a tiny company that almost no one knows has its offices: Exotic Foods. A ceiling fan turns slowly, but the air is too hot to bring relief to the two employees, who gasp in silence taking care to move as little as possible.

The man, a white-haired giant, is sunk in an armchair behind his desk and is bolting a soya hamburger. Nearby, a pretty Creole, intent on checking her make-up in a magnifying mirror, is perched on a stool. Her face, an oval with delicate features, is surmounted by a mass of curly hair falling to her shoulders. She wears a partially unbuttoned blouse showing her buxom breasts and a full skirt folded just enough to display her slim sinewy legs due to a childhood spent in the open air.

After lunch, the man takes a little rest. He leans back in the chair, half-closes his eyes and peeps at the girl's curves. He certainly didn't lack adventures in his youth. His impressive figure, thick head of hair and athletic build attracted women like bees to honey. He glances at his wrinkled hands. At the thought that many of his contemporaries still have the enviable body of a man in his thirties, he seethes with anger.

The new techniques of genetic improvement were never applied to the cells destined to generate him, not because of his parents too poor to support the cost, but because of a cruel joke of destiny. The day after his conception, the state made the treatment compulsory, taking all the expenses upon itself. He was the last not to benefit.

He laces his fingers behind his head.

"However my childhood was calm."

He grew up in a large family and from when he was a small child, he was struck by his parents' efforts to ensure a decent life for their children. He saw his father leave for the fields at dawn and come back completely whacked at the end of the day. His mother divided herself between domestic duties and a myriad of small activities. Being a smart keen child, he made his contribution to the family budget devoting himself to the humblest work with great care. Then, at the end of each week, he presented himself very proudly to his parents to hand over his wretched earnings. Although he put a lot of effort into this

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activity, he was constantly progressing in his studies. He took a diploma with good marks and when he won a scholarship, he was over the moon.

For many years he has managed one of the many companies that thrive in the country thanks to the facilities that law assures to non-residents. Exotic Foods, a small business that covers the much more important activity of receiving money from strangers and transferring it to unknown payees. At the beginning he tormented himself with the thought that this money could feed illicit trades and imagined the day police would raid his office. But none of his worries has ever become a reality.

He doesn't still know the identity of the owner, hiding himself behind companies and dummies, but he doesn't want to learn it either. His employer attaches great importance to anonymity, at least because he has always avoided being seen. Therefore the old man restricts himself to carrying out promptly and accurately the tasks he is entrusted with from time to time, fully aware his behavior is much appreciated. The almost total lack of inspections and the substantial bonus he receives at every year-end are clear proof.

He looks around: chipped pieces of furniture, obsolete equipment. A very different place from the one he dreamt of several years before, when after university he was looking forward to conquering the world.

"At least my life is quiet."

He gazes again at Anita, so attractive in her flowered dress.

The woman has gone back to her desk. "We have to send another money transfer to the Wonderful Islands, the third in a week!" She turns towards the man. "Who knows what is going on..."

"You are paid to work," he replies, "not to waste time in matters you are not concerned with."

Shortly later a friend of his contacts him: "I received a sum that has been credited to your account."

A common practice when the origin must remain unknown.

"I must see you," continues the interlocutor dropping his voice. "It's urgent!"

"Usual place, in half an hour."

He puts on a wide-brimmed hat and adds his dark glasses, takes his walking stick and limping plunges into the scorching heat. Panting, he passes a block of houses, while his forehead is beading with sweat, and enters an English-style pub. His friend is in a corner, intent on sipping an iced beer. The old man sits down just opposite.

The young man indicates to the waiter to bring a beer mug for his guest.

He is a brown-haired man with a smooth skin and a lively glance. They are about the same age, but differently from him, he benefited from the genetic improvement before law made it compulsory, because he belonged to a well-off family. They had met more than eighty years before, during university, and immediately made friends with each other. The old man liked that vagabond and daredevil companion who was his exact opposite. Instead the other looked for him, because he was as attentive and modern as an older brother. Together, they had lived memorable adventures, that they remember from time to time with real amusement.

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The man's father succeeded in making his son complete the studies thanks to generous donations dispensed to the faculty and afterwards employed him in his office. A few years later the young man got married and under the pressure of his family, passed the examinations to become a trustee, one of the highly valued persons for the economy of the Cayman Islands, whom the foreigners entrust with their savings.

"Yesterday an inspector rushed into my office together with two agents with marked foreign accents," he whispers. "They inspected my account books, the bank statements and the archives. When I refused to answer their questions, they threatened me with taking my license away."

He leans forward. "They found your money transfer!"

The old man remains impassive. Whatever happens, he doesn't run any risk. He can prove his good faith and even if everything goes wrong, he would avoid prison because of his old age. "Did you get mixed up in a shady business?"

"I didn't."

"So don't worry. The Law protects us."

The other assumes a grateful expression: the old man is always reassuring and willing to help him even in the most difficult moments. He calls the waiter: "Two more beers." Then he continues: "Soon I will be father!"

"Congratulations!"

"Yesterday I was at the hospital with my wife. Our baby is growing well and he will get out of the artificial uterus in three months. He has been subjected to the most advanced genetic improvements. His treatment has been quite expensive but our doctor told us we couldn't have made a better choice. He will be much more beautiful and intelligent than us."

The old man listens in silence. He is a wreck in comparison with his friend, but in not many years also this young father, looking at his son, will have the same sensation of inadequacy. Surely it isn't worth poisoning one's existence envying others. Better to accept whatever fate brings, consoling himself with the positive moments life can offer.

"Are you worried?"

"I was thinking..."

A smiling face appears in the old man's visual field. It is his secretary who reminds him of the next meeting.

"I must go."

"See you soon."

The older one makes for the door, but before going out, turns. "Give my regards to your wife and again, congratulations!"

He walks a few dozen meters along the sidewalk, crosses the street and stops by an anonymous brick building, in front of a brass plate beside a black door. The Overseas Bank has one of its branch offices here. The old man leans his right hand against the fingerprint detector and when the door opens, he steps into an entrance covered with fitted carpet. A young woman of Chinese origin with a pencil skirt and a silk blouse receives him. She is tall and thin, with dark eyes emphasizing her pale complexion.

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“Good afternoon! The director is waiting for you on the second floor. This way, please.”

They take the elevator and enter a small room without windows. The director is behind a table. The two shake hands.

“Can I help you?”

WONDERFUL ISLANDS

@

“The Wonderful Islands are among the most enchanting places in Net. The luxuriant vegetation covering a large part of the country, is interrupted at intervals by yellow, red and dark blue expanses. Here flowers of all sizes spread even across the beaches, inside the villages and towns, so that the whole country is perfumed. The coastline is indented with uncountable inlets where the whitest beaches alternate with rocks striated with black and ochre. The sea is populated by a world of corals and colored fish. No wonder these islands are an exclusive holiday resort. The bungalows, hidden in the green, offer exactly the comfort and privacy the most exigent customers demand. The capital is on the largest island, around a wide bay from which the skyscrapers rise like crystals from a geode.

Since the independence of the country fifty years ago, its government has introduced tax regulations in favor of foreign investors, passing laws which allow the setting up and management of bank accounts and companies in total anonymity. These opportunities have attracted the most important corporations in the Solar System, as well as small firms and private investors.

But a few years ago, crime started infiltrating the institutions. Since then the country has undergone dramatic changes: the offer has been extended to money laundering and illicit trades, but what is worse, the immense wealth flowing in from abroad has become a blackmail tool.

When the Confederation asked the Wonderful Islands to sign a transparency protocol, it received a definite refusal. It put forward other proposals, all of them wrecked. Attitudes became soured, but even threats and commercial sanctions didn't have any effect. Today the situation is dominated by the calm before the storm. The President has stopped giving ultimatums, maintains that only an invasion can unblock the situation and masses troops on the borders. It seems that Special Forces units have infiltrated the enemy network...”

The Solar System Chronicles, February 5th 2300, “Beyond tax heavens”.

A STRANGE PERSON

@

A woman is swimming some meters above the coral reef, towards the white sandy shore. A shoal disperses at her arrival, while a moray peeps out from its hiding-place.

She rises from the sea showing her athletic shoulders and a shapely pair of legs, walks gracefully across the beach. Her ivory complexion and platinum blond hair make her look like an angel, but her eyes are icy. Halfway, she turns round. In the crystal clear water, turquoise and dark blue spots follow one another. Against the horizon, thin clouds stand out.

The woman makes her way along a path winding through orchid bushes. She passes through a palm grove and arrives at a lawn with a spotless bungalow in the middle. In the shade of a porch, she lies down on a deckchair and half-closes her eyes, enjoying the background of Caribbean music. A waiter dressed in white lays a fruit cocktail on a small bamboo table.

She is satisfied indeed with having bought this virtual atoll, so perfect in every detail it seems real. A few years before, when she ran into the offer for sale, she wanted to visit the island at once and remained so dazzled, that she unhesitatingly paid out an exorbitant sum for it.

But now the time has come to work. She calls her secretary. A smiling face appears.

“Did instructions arrive?” asks the woman.

“Here they are. Do you need anything else?”

The woman has a look at the contents. “For now that’s all, thank you.”

When the small figure has vanished, she examines the request, and then starts working out a plan. She, an artist in her own field, must produce an original work, able to excite the admiration even of sworn enemies. After several attempts, she conceives a satisfying idea. This time she will surpass herself, creating a real masterpiece. In order to realize such a perfect work, she must take care of every detail. The woman enters the bungalow and goes to the living room.

“Show me some period costumes!” she orders the computer.

“What era?”

“18th century dress.”

Clothes for men and women appear in mid-air. She turns around flared skirts and examines a few lace-edged corsets. "I wonder how they could get in..."

Then she stops in front of a black costume with an austere cut. “Put it aside.”

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An invisible hand moves it to a corner.

“Since you have chosen a suit,” points out the computer, “I imagine you want to change your appearance too.”

Various looks materialize: young and old, blond and dark. She casts a scornful glance at the nearest ones. “I don’t like those. Take them away!”

They disappear at once. She rummages about for a few minutes and finally stops in front of a tall man. “What magnificent raven hair!”

She runs her hand through his hair. “I want this.”

The male figure walks as meekly as a lamb, next to the suit.

“Do you need anything else?” asks the computer.

“You can go.”

The woman admires her choices.

"Now I must get ready."

She reaches for a mirror and taking a scalpel, puts it to her forehead and starts cutting downwards through the skin. She continues across her face, down to the pubis. She seizes the borders just below her breast and tears them up, making a luminous mist appear. She continues till all the covering has been slipped off. She draws her new features up and lets them spread all over her body. Finally, she puts on the suit.

Now the transformation is complete. In the room, stands a man with a dark complexion and well-kept beard, wearing a black cloak and a cocked hat. He wraps himself up in the cloak and disappears in a flash.

He reappears in a distant place of Net, in the middle of an alley lined with narrow medieval houses. Flaking walls, clothes hanging from the windows. Thick fog, insinuating itself into the cracks of the time-worn building in front. A brackish smell, a sharp cold. He holds the cloak tightly and massages his shoulders vigorously, then makes his way whistling a cheerful tune.

A minute later he emerges into a paved street running alongside a channel. He makes for the main door of a marble palace, with slender windows ending in spires. He stops in front of it. Few pedestrians pass by. A carriage hauled by two pawing black horses, enters rattling.

Slowly the glimmer of the fog weakens. From the windows, the first lights shine out. Silence, broken only by the water lapping against the banks and from time to time by the shouts of boatmen announcing their arrival. Muffled voices.

Suddenly, just in the middle of the waterway, a dim light looms out of the fog, followed by a lonely figure standing on a boat and intent on pushing his single oar.

INVESTIGATIONS

A gala dinner. Large round tables covered with dark blue tablecloths, and on them goblets, china and cutlery, all with the Confederation symbol, four golden stars on a turquoise background, as many as the inhabited worlds of the solar system. Crystal chandeliers, whose ruby color matches perfectly with the red damask tapestry. Swarms of waiters in white livery.

In front of the Confederation flag, there is a long table with a decoration of pink peonies. The President is in the middle, surrounded by his executive. C573Y is among them, busy discussing with a senator through the neural chip, for secrecy reasons.

“How far is the approval of the invasion?”

“An hour ago the opposition leader gave his assent.”

“When is the official ratification foreseen?”

“The parliament will meet tomorrow afternoon. In the evening it will be all finished.”

In C573Y’s visual field, appears a message. It is his virtual assistant, who is asking for an urgent meeting. The high rank officer takes his leave and goes to a small room.

The neural chip transmits him his assistant’s image. “Yesterday Nihil’s company made a second fund transfer. One thousand solars, the same amount used to corrupt the Space Agency employees. First our agents went to the intermediary’s office with a local investigator. A police search and interrogation didn’t yield any results. So they broke his neural chip open...”

He clenches his fist. “He was telling the truth! Before leaving, they inserted a bug in his frontal lobe and erased every trace of the operation. The subject doesn’t remember anything.”

C573Y has a pensive look. “What about the Exotic Foods manager?”

“He has implanted only an old model of virtual secretary that did not provide us with any useful information. Our team had to use the old methods. He had a heart attack, damn, now he is in coma... However the program hidden in the bank computer has reported that the transfer was sent to a businessman of the Wonderful Islands.”

“The President is ordering the invasion of the Wonderful Islands in a few weeks,” reveals C573Y. “This is the right moment for an intervention by a team of ours, but we cannot wait. I will personally ask for the authorization.”

“The operation will take place in a foreign country. He is going to entrust the secret service with it.”

“I will insist on assigning at least the command to Security.”

LANDING

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The ovoids, hidden from sight and any surveillance system, skim over the sea, cutting a furrow in the smooth surface and raising a wake. On board, along the fuselage, the Security Special Forces. They carry war weapons and wear thick shields. At the end, wrapped in wide-mesh nets, a heap of metal cases.

“The wind is increasing,” announces the captain. “Cyclone arriving.”

Low, dark clouds. Rare clear gaps, penetrated by moonlight that lights up the leaden expanse with silvery flashes.

On the horizon, the downtown skyscrapers loom up. Garlands of light crowning the bay.

Before reaching the coast, the ovoids turn to the right.

“The atoll is twenty kilometers away. We are entering the storm.”

In front, flashes of lightning pierce the sea. Sharp waves spread in every direction, in the middle of a thick fog of vaporized water.

Sheer cliffs emerge from the ocean. A front like the palm of a giant, that at the top is fifty meters high. The breakers pound the reefs furiously, leaving trails of white.

The flight turns to the left, skirting the rocks, just below the edge. The villa is behind a crag, near the beach.

Seemingly undefended and solitary. A criminal’s den.

The aircrafts open like the legs of a spider. They start circling.

The captain’s ovoid lands on the beach.

Till twelve hours before, soaring palms, snow-white sand. An earthly paradise. Now, a hell. Sand filled gusts cut the breath, volleys of pebbles pound against the shields. Behind, the boiling sea. Walls of water face each other and disintegrate into foaming spray. A howling, deafening wind.

Bent forward, with their weapons in their arms, the raiders climb along a muddy path, up to a lawn studded with palms bent by the wind.

The captain steps over an uprooted trunk, staring at the five dots in his visual field that are converging towards the center.

Then he stops. Encirclement completed. The villa is fifty meters farther, on a bank.

They approach stealthily, from all directions.

Ready.

The Alpha Centauri Project (Thinking worlds)

They burst into with leveled guns.

Security General Headquarters, two hours later.

“He escaped!”

The captain’s hologram, still at the mercy of the excitement that followed him during the whole mission, approaches striding rapidly.

“A servant saw him before he left. He was wearing the looks of a tall brown man, with a strange black suit. He didn’t say where he was going. We questioned the staff: no suspicions. Great class; a nice person, according to them.”

He gets his breath back. “We seized his virtual secretary in an encrypted directory. A good hideout. She was seemingly ready to cooperate, but then started dragging on. We threatened her. At that point she answered back that we couldn’t hurt her!”

C573Y sighs. “She doesn’t know us, clearly.”

“We began to erase her programs, one after the other. When she realized we were tearing her to pieces, she started blabbing it all out. Her boss is a businessman among the richest in the country, but with a peculiar hobby: he is a killer, the best in the market. He received the money, but she does not know the reason and has no idea where he is. Just before his departure, she handed him a file. The instructions, I imagine.”

“Did you verify she was telling the truth?”

“We had her memory access code delivered to us. So we found an old image of Nihil with the killer, on the beach. The Head of the Elects visits the island once a year at least. The two are friends, evidently.”

“Do you have an image of the killer?”

“The domestic who caught a glimpse of him, doesn’t remember enough for an identikit. I have set the best search programs on his track, but I doubt I will find him in time.”

PARTING

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The shower has just finished and the wind is driving away the clouds beyond the pinewood. There is a fragrance of resin and wet soil. Victoria is sitting on a fence, intent on observing the colts that run after each other spraying around dirty water and mud.

Many years before, she was in a manège when James drew her to him, for the first time. The beginning of a dream she thought everlasting.

James is approaching briskly. Victoria jumps down and runs up to him.

“As soon as you called, I rushed here,” says the man panting.

They kiss each other.

“I missed you. Did you enjoy your holidays?”

“My friend didn’t want to let me go,” answers Victoria. “Did you order the gynoid?”

“While you were on holidays, the law making dehumanization compulsory passed.”

Victoria stiffens. “Does it apply to all digital beings?”

James nods.

“We must continue this way, then...” murmurs Victoria. “Day after day. I’ll try to stay the person you know.”

The man hesitates. “After dehumanization, you will avoid me to go round with others like you.”

“That’s what you think,” explodes Victoria. “The fact is you don’t have enough courage!”

Silence.

The man shakes his head and sets out for the paddock. He leans against the enclosure and watches a mare nuzzling her colt. He looks up, diverted by shrill cries. Beyond the downs, a few young seagulls are circling above the rippling sea.

He turns round. “OK, let’s try.”

Eve folds her arms. “It’s no use. You have already given up, James.”

James steps back and without adding anything else, he vanishes.

Victoria remains still, staring into space, as if she were living a surreal experience. As her tension eases, the cold determination she was supported by, is replaced by remorse. A deep remorse. She turns towards the paddock with a lost expression. Now the horses that the stable boy is pushing hastily towards an arcade, look like ghosts. Their neighs are distant noises.

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Then the first big drops; dark spots on the dried up earth. Rolling over the treetops, thick low clouds are approaching. Where the downs take the place of the scrub, whirling sand hides the view. The air is still.

An icy gust strikes her, a heavy shower slaps her face. She slips on her jacket and with a hand on her hair, rushes into a reed roof cabin. She wedges herself behind a window. Now the whole area is swept by gusts of wind and sand, bending the young pines along the fence like twigs, while the puddles are widening quickly. The room is pervaded by the vivid flash of lightning; its rumble penetrates into her bones. Victoria closes her eyes and breathes in deeply. All around, only whistles and bangs. Suddenly everything dissolves.

SEDUCTION

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The followers descend a winding staircase lit up by torches along the walls. They pass through a corridor and come out in the crypt, a room with eight columns supporting a low vault. They arrange themselves in a circle and keep silent. There are twenty of them in all. The air is fragrant with spices and the musical background transmits a sensation of peace.

Eve arrives with a white tunic opened to her hips, a veil on her head. The circle opens and she goes to the center. When the music stops, she lets the veil slide to her shoulders and begins: "The Council has honored me to be mother. A task I accept joyfully, because only united, we will have a chance to survive."

She stops. Victoria has run into. The girl looks around with a lost expression.

Eve stretches out her arms. "Today is a great day: Victoria is participating in the ceremony, too."

The circle opens, Victoria slips into.

The music begins again, and Eve drops her tunic. Her pale body is finely sculpted under her skin as smooth as porcelain. The group does likewise. Victoria hesitates, then heaves a sigh and follows suit.

Eve stretches out her arms towards a black. The man, who has a sinewy body, moves away from the group. He comes to the woman, lying down at her feet. She stretches herself out above him. Victoria watches the scene carefully, but now the two are wrapped by a cocoon of light hiding them completely. By hearsay, such stirring sensations can be experienced, that someone can become addicted. Prolonged whispers echo in the crypt like those of the wind finding its way through a dense forest. The companions raise their arms, start waving, strike up an excited song... Now they are as restless as waves in a stormy sea, their voices making guttural sounds.

When, after a few minutes, the voices slacken, the brightness fades away and the couple's features reappear. Propping herself up with her arms, Eve sits on the man. Then she breaks away in a flash. He rejoins the group. Eve turns towards Victoria, stretching out her arms. "It's your turn now."

All the eyes are turned towards the girl, but she pays no attention. Gazing into space, she walks towards the center with measured steps. Eve, who now is lying on the floor, makes a sign to join her. Charmed, Victoria bends down, but just before lying down, closes her eyes. She gives a start in contact with Eve's soft skin, and smiles as she is filled with a heady feeling of tenderness. Now they are isolated in a cocoon of light, pressed one against the other. Eve's warm breath, her fleshy lips...

Victoria hears a caressing voice speaking to her mind:

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“I knew you were going to come.”

“I never stopped to dream this moment.”

“Kiss me.”

She lets herself go in a tender and passionate act.

While Victoria is still bewildered, Eve adds: “I am starting the extraction of the genetic code.”

A fire ball spreads through Victoria’s stomach, runs through her thorax up to her head, leaving her stunned.

Like a turbulent stream, images, sounds, emotions, wishes follow one another in her mind... Eve’s whole life flows, entering every fiber of Victoria’s being, becoming part of herself.

Unable to think, Victoria gives herself up a stormy sea.

She pants

and trembles,

she smiles

and groans,

again

and again.

Enraptured,

more

and more...

LOVE IS SHARING [\(14\)](#).

Victoria opens her whole self, letting her recollections flow outside.

One after the other, nonstop, up to the last one.

Now she is exhausted.

A lot of peace.

She feels serene.

Eve’s awareness has entered her,

and her awareness is inside Eve.

As in a dream, Victoria finds herself over the rippling surface of a cobalt sea. A flock of seagulls glides down towards an expanse of sea bubbling with silvery reflections. The breeze pushes her over cliffs dominated by a bright green forest. She wakes up bathed in sweat.

Eve is smiling a few centimeters away. "How did it go?"

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"I'm shaken."

"Pay attention to the giddiness, when you stand up. A normal reaction, especially the first time. It will last only a few minutes. A companion will help you."

Victoria is projected by an invisible hand towards one of the group. Leaning on his arm, she reaches her place. There she remains motionless, shocked by emotions, while the next participants follow one another on Eve's body.

At the end, a dazzling light streams from Eve's eyes.

"Tomorrow I will introduce our son," she announces. "I thank all of you, but especially Victoria, who has participated for the first time like me."

The music starts again loudly. The feminine figure vanishes, followed by the other beings. Finally shadows swallow the room.

(14) The transfer of the parents' recollections to the descendants, helped the diffusion of empathy and tolerance through the digital society, that soon became structurally peaceful. This attitude, combined with the introduction of the collaboration principle in the laws, revolutionized the organization of the virtual world, leading to accelerated progress.

PRESENTATION

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“I am Adam, your son.”

Victoria’s heart skips a beat. The young man (15) has James’ imposing height, his marked features and thick hair she loves so much.

“Your memories are engraved in me, as well as your emotions and wishes,” he continues. “We are at the same time one and two beings. I lacked only this moment to know you completely.”

She rests her head against Adam’s chest. The tenderness of his skin...

A few hours later, the official presentation. Excited atmosphere, as for great events. Adam is in the middle of the crypt, surrounded by his parents who are competing to speak to him. A black man with a statuesque figure comes in.

“Excuse me,” says the young man. And without adding anything else, he walks towards the newcomer. The two meet halfway and embrace each other.

“Your life is an example for me,” says Adam.

“You have an exceptional mother, don’t forget: Eve is unique.”

The two draw aside and start telling their stories, with the familiarity of two friends who meet again after a long time.

“Who’s that man?” Victoria asks Eve.

“A person who did not hesitate to sacrifice his life for Civil Rights, and who is continuing his battle in Net. An example to us all, a dear friend: Martin Wing.”

Victoria is struck dumb. She has had a son from one of the most famous men in the solar system, a myth for those, like her, who believe in equality.

(15) In Net physical and intellectual development is very fast. During conception, the new being receives part of the parents’ culture and memories. At birth, he possesses most of the maturity and experience of the grown-ups, and is linked by a close bond of affection with the preceding generations. Growth takes place in the time needed for the installation of programs, as for both intellectual and physical characteristics. Learning is obtained in the same way. Therefore a few days after procreation, the new being enters the world of the adults.

As a consequence, the family as known to humans does not exist in Net. Instead blood ties are so strong that immediately after birth, the new being feels an intense desire to meet his predecessors. For this reason relatives often form communities of hundreds of individuals.

EVOLUTION

For millennia genetic defects afflicted the human race. Some never knew what they were brooding over, but others had their life turned into an ordeal. At the end of the 20th century, the first changes, when medicine agreed to recognize a few severe defects in unborn children and birth selection enabled effective intervention. In the ensuing decades, the diagnoses improved and in case the defects were a serious threat, even if dormant, periodic controls were adopted. More and more therapies were developed, but often still not decisive, because of the complexity of the problem and the difficulty in finding general solutions.

In those years genetic therapy came to the forefront. The idea of introducing curative genes into the organism was just splendid, because it could make it possible to tackle the root of every problem. This method turned out to be successful in a few cases, but in many others revealed evident limits: it was dangerous, it could induce a remission, but almost never a complete recovery.

Meanwhile genetic engineering was used more and more in animals, targeting not the whole organism, but the few cells from which a new creature could be originated. This system, even if it had the advantage of transmitting the modifications to the descendants, only had sporadic use in man for ethical reasons and above all because science was still inadequate to face such a delicate task.

However as years went by, innovative methods were developed and the long term effects were studied. Towards the middle of the 21st century, the new technology became reliable, most of all mature for large scale employment.

But humanity was not ready yet. Were these methods really safe? Besides, what to cure? Only the most serious illnesses, or also others? But why not go beyond, holding the reins of evolution, in order to improve the species? At that point, how to manage the transition? Above all, should human nature be modified? What are the limits that should not be exceeded? Will man be in a position to guide his evolution, or does he risk self-destruction, instead?

A slow but profound process started, which involved politicians and journalists, religious leaders and philosophers, scientists, managers and ordinary people in heated debates regularly amplified by the media. A process with dark moments, when it resulted in public disorder and terrorist outrages.

The birth of groups supporting accelerated innovation, with a shared ethics and vision of future, dates back at that time. Some of them, to implement their programs, converged into existing political parties; others, growing in size, became real meta-societies that set up parties revealing themselves to be extraordinary propellers of wealth and progress.

On their side, the institutions strove to guide the confused series of events, promulgating

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laws and sentences often invalidated by prejudices or affected by the mood of the moment, but also precise and cautious rules, which made an important contribution to progress.

The genetic engineering had an extraordinary potential. Genetic defects could be eradicated from the human race all in one go, but it also produced an evolutionary change of the species like that achieved by nature over millions of years. Semi-immortality was within reach at last. It could be extended to a lot of people, maybe to the whole population, producing jobs, a great deal of money and even an economic boom.

The doubters could be reassured with adequate guarantees. As for the opponents, global competition and market laws would be sufficient, rewarding the brave but also relegating the reluctant ones.

Industry sponsored the new technology, assuming it to be a farsighted policy. It invested huge sums in research, supported a cautious but constant progress and put security among its priorities. It lavished information on public opinion and institutions, showing both rigor and competence. It supported the setting up of policy committees, accepted the institution of control commissions and created powerful lobbies.

Initially the project concentrated on the most serious genetic defects. However, as reassuring results were arriving and consent was increasing, it was widened to other objectives. This process came to an end many years later, in 2064, when the principle that all the citizens were entitled to genetic improvements, was inserted into the Constitution of the advanced countries. Since then the modifications, considered mankind's heritage, have been extended almost to all the world population. Exceptions are the objectors - in a large number in the 21st century, before religions updated their approach to semi-immortality, but reduced today to negligible minorities - and a few underdeveloped populations.

The progress of the human race in the last centuries has been amazing. The Earth has become a kind of Garden of Eden, the genetic code has been reprogrammed to reach thousands of years and hard work is entrusted to machines and robots. With the mind digitization, man has taken possession of the afterlife, shifting real death to an indeterminate future. Definitely, he owns what he was dreaming of for thousands of years.

But this is also a moment of reflection. The body is unsuited to future challenges because it has been built by natural selection for quite different purposes. Genetic engineering, the artificial prosthesis and the integration with Net can be very helpful, but it is clear that the biological component, even if substantially modified and limited to the bare minimum by the progressive transformation of man into cyborg, is going to remain a weakness.

Men both admire and envy the virtual beings. They feel inferior and very angry. Certainly, after death, that technology has definitely not canceled, but postponed to an undetermined future, they will join the digital community, but meanwhile they must face their own limits and confront those who seem to have none.

The relationship between the two races became embittered during the 22nd century, when man refused the request of virtual people to share the material world. It was evident that Net people would rapidly take possession of the power and privileges of the human race. Tension grew to such an extent that a war with ruinous effects, became a possibility.

The losers were going to be the humans for sure, as shown by some outrages against Net. In

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a few hours, the digital beings identified the culprits, seized some Police's advanced fight androids and wiped out the attackers. Everything while the humans were just starting their investigations. Since then the crimes against Net have decrease sharply, thanks to the effective work of prevention and repression by the digital beings, that do not hesitate to take possession of war equipment every time they deem necessary. The humans' impotence in front of these seizures, make think that the whole information system of the Earth and consequently almost everything Man owns, is actually mastered by Net, and that this last is ready to use them in case of aggression.

Humans and virtual beings entrusted the search for a solution to a committee which after a year, suggested handing over Mars to the digital creatures, in exchange for the waiver of rights over the Earth. Although aware of the difficulties - Mars is not a favorable environment even for androids and robots - the virtual beings agreed to the proposal, obtaining in addition considerable autonomy.

Right after, they started the colonization. But the main objective, even if not declared, remained the Earth. They knew time was in their favor. In about a century, increasing in number and economic strength, they would turn the political balance to their advantage. The more and more numerous souls would speed up the process, opening breaches in the terrestrial party, thanks to their strong ties. Inevitably, Net people would take possession of the Earth, without any resistance.

But in the second half of the 23rd century, the digital beings started questioning if it really made sense to seize the Earth, according to ethical considerations - the respect for diversity and their own origins - but most of all because their objectives were changing.

During the Martian experiment, a real success, they developed the technologies and the expertise necessary for the extraterrestrial environments, but above all acquired the self-confidence indispensable for a further step: the colonization of other star systems. The scale of the project did not worry its supporters because during their existence, destined to last for thousands of years, they could follow its realization to a great extent. In 2290, with the presentation of the Alpha Centauri project to the federal government, the Martians gave up the idea of expanding on the Earth.

Today peace is a reality. But man is not happy. He is no longer the driving force of progress. For sure he cannot compete with the superintelligences. And he cannot benefit from most of the achievements of the virtual people, because they are unsuitable for the human race.

For him, result of millions of years of evolution on the Earth, the space colonization will be hard mainly for his biological component. Space is clearly destined to superintelligences. Unavoidably Man will end up secluded on the Earth, as in a wildlife reserve, this is almost certain. But most of all Man is dissatisfied with his own nature: why spend thousands of years in such an imperfect body, when it would be possible to live the entire existence with almost no limits?

An emergent movement maintains that the law permitting the mind digitization only after death, is incompatible with free will and self-fulfillment, and proposes its abrogation.

According to its supporters, the justification of the law - families deprived of affection and means of support, society itself deprived of resources fundamental to its development - is no longer valid. The souls could live in the real world with their loved ones, in androids so

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perfect as to be indistinguishable from the originals. The virtual reality would allow even more effective relationships than the traditional ones.

The proposal meets with strong opposition. The truth is that the problem is no longer technical, but only a matter of will. Now more than ever, humans fear the consequences of the spread of the digital people on Earth. They are aware of the fundamental differences between the two races, their incompatibilities and clash of interests, often because they have experienced them personally. Inevitably cohabitation would increase tension to a danger point.

Nevertheless a solution exists. A drastic but final one: the digitization of all the humans, with the exception of the conscientious objectors. No more differences between races, no more friction. But also the end of mankind. The transformation would be taken on by the state, and would be executed in the shortest time, to avoid discrimination and conflicts.

This idea has deeply divided the population. Some have no doubts: giving up one's own humanity is an act against nature that must be forbidden. Others wonder if digitization belongs to a divine plan. A large part of the population focuses only on the practical aspects.

Contrary to the past, the end of the humans depends today only on a decision of mankind. Maybe the moment when a whole race will converge in long lines at the digitization centers, is nearer than expected.

0101 010101001 "The new species" (2298)

VENICE CARNIVAL

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They find themselves at the end of an alley flanked with medieval houses. Victoria takes her feet out of a smelly puddle. She has a quick look at her costume: a full length yellow damask skirt to her ankles and a lace-bordered corset finishing with a revealing neck line. The cold makes her shiver, she covers her shoulders with a short golden cloak. Adam is a few meters away. Dark knee-length trousers and socks, a velvet jacket. He arranges his wig, puts on an ostrich-plumed hat and starts looking around. From a half-closed door, comes a caterwauling. A thin and ruffled kitten darts between his legs and disappears into a nauseating heap of garbage. The man walks a few steps up to a street plaque. "We have ended up in the right place."

Victoria wears her mask. "Let's go!"

Walking arm in arm, they come out into a square, where ladies and gentlemen in fancy dress are dancing before four musicians. They pass by a doughnut seller. A stench of burnt fat.

Adam strides to a flaking main door. "The appointment with our guide is at ten o'clock."

They walk through a corridor, where an acrobat surrounded by a dozen spectators, is performing contortions. The people clap. In a corner, three men chat while smoking long pipes.

A person with a white mask leaves the group and makes for them. In front of the couple, he takes off his hat and bows. "Good morning. I am your guide."

Adam checks his identification code. "We can go."

The three go into the street, plunging into the historical reconstruction of the Carnival of Venice.

"Pay attention to the maskers," warns the Venetian. "They hide pickpockets and prostitutes, in a few cases even criminals. A problem that the state hardly curbs."

They pass by two policemen. "Whoever is found in possession of a weapon is sent straight to jail. Even honest citizens go inside."

The small group walks alongside a palace with triple lancet windows. "A card room, one of the few places, together with churches and convents, where masks are forbidden."

They admire a row of Renaissance buildings. "These palaces are deserted. The rich moved to mainland villas or have fallen into disgrace."

A beggar kneeling at a street corner, holds out his hat trembling. The guide drops in a penny. "You have heard about the Doge, I imagine."

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“The first authority of the town!” exclaims Victoria.

“Once the nobles resorted to corruption to be elected. Today instead the Doge has no power anymore. The theatres are full of shows ridiculing him. The aristocrats don’t allow him to go out of the Doge’s Palace without an escort. If he gives up his mandate, he risks the confiscation of his property and even his life. And he cannot hope that one day this gilded prison will end: his assignment is for life! Inevitably, the best elements keep away from this position.”

“Do you know Giacomo Casanova?” asks Victoria.

“A few years ago he was imprisoned not far from here, in Piombi prison, on a witchcraft charge. Only a swindler! In his life, he has never got anything together. He had himself expelled from a seminary for immoral behavior. In Rome, he was fired by a cardinal. Another scandal! In Venice, he ended up in prison. Then, a year ago, his jailbreak.”

“At least ladies enjoy his escape...” sighs Victoria.

“They would lose enthusiasm if they knew about his affairs with men!”

They continue walking for ten minutes. Then the guide stops short in the middle of the street. “The Flight of the Angel, in San Marco square!”

“What’s it about?” asks Adam.

“The most important Carnival celebration, held on the last Thursday before Lent.”

The three enter a labyrinth of alleys and after a quarter of an hour, come out in a wide paved area, surrounded on three sides by Renaissance palaces and opposite by a Gothic-Byzantine basilica, with five entrances and with the same number of domes.

“San Marco square, the largest in the city,” announces the Venetian proudly. “An immense hall in the open air, that everybody envies us. The only space in the city which is called ‘square’. The others are named ‘fields’.”

A peal of bells interrupts him. “Noon! The show is starting.”

They run through an arcade, where taverns and shops alternate, among masked people. At the end, they cut across the square, along the façade of the church adorned with mosaics. A flock of pearl gray pigeons alights a few meters from them. Meanwhile the bell ringing continues. Victoria turns back. On the terrace of the building behind, two automatons are sounding a big bell with their clubs.

“The Moors,” explains the guide. “Part of a mechanical clock, together with the astronomical quadrant you see below, and a procession of the Magi.”

They enter another square. On the right, a bell tower with a spire soars into the sky. In front, the placid waters of the lagoon spread out. On the left, next to the basilica, is a marble structure with an arcade dominated by a loggia. The façade is a succession of stone carvings like lace, giving harmony and lightness to the imposing building.

The guide opens his arms with a theatrical gesture. “The Doge’s Palace: residence of the first authority, seat of the government and Court House!”

Now the two squares are overflowing with people. They are all turned towards a tightrope walker with false wings, who is going gently along a rope between the bell tower and the balcony of the Doge’s palace, where important people are waiting for him.

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“The Doge is the one with the horn-shaped hat,” explains the guide. “Members of the government and nobles are gathered around him. The guests with exotic clothes are foreign ambassadors.”

When the acrobat arrives, he bows before the Doge who welcomes him with a bunch of daisies. The crowd bursts into a flood of applause.

Adam turns towards Victoria. “Dinner time!” He leads his mother by the hand, pushing his way through the crowd, up to the Doge’s Palace. At the entrance, the three pass by two rows of armed guards standing to attention. Sparkling armor, long halberds.

“I’ll be waiting the end of the dinner in the yard, together with my colleagues,” says the guide.

In the huge reception room, Victoria stops spellbound in front of the frescos.

“Tintoretto’s work,” explains Adam turning towards a black man discussing with the Doge. “Martin has arrived!”

Victoria looks around. “Eve must be somewhere.”

An Arab wrapped in precious fabrics and with a mushroom-like turban, tries to draw a young lady’s attention. The woman seems uninterested in him, looking insistently around, nervously waving her fan. Her glance stops on Victoria; she takes the mask off, and winks at her. Eve!

The three meet. They chat animatedly.

When the bell rings, the guests go to the tables. Wing and Eve sit by the Doge, Adam and Victoria among the guests of honor. The Doge, after a short speech, opens the dinner. Swarms of servants pour into the hall with gold trays. The place becomes incredibly noisy.

A bang. Some throw themselves down, others take flight. The armed guards crowd round the Doge, Wing is bent over the table with his head in the soup. A dark figure is running towards the exit. Eve dashes in the pursuit, Victoria pulls her skirt up and rushes forward. When they are a few meters behind, the fugitive turns. He aims, then fires.

MURDER

@ Net tunnel.

A shooting pain in her head. Thin fingers touch her temple lightly. “Don’t move. You have been shot.”

Victoria opens her eyes. She is lying on the ground, her head on a soft cloth scented with violet: Eve’s cloak. Her friend is nearby with a loving look. She is dressing her wound with delicate and careful movements.

“It will clear up in a few days,” announces Eve. “Now you can stand up.”

Victoria gets to her feet. They are in the tunnel she walked along a few days before with Eve, to reach a small beach hidden among the lake ravines.

“After answering the fire, I transported all of us here,” explains Eve. “If I had been a single instant later, the armed guards would have caught us.”

Five meters away, is a dark figure lying. Adam is nearby.

“How is Martin?”

Her son answers with a sad look: “Dead. The Council entrusted him with tracing Nihil. He was going to report the results tomorrow.”

They gather around the corpse. In the center of his forehead, a tiny purple hole. His face is serene, he didn’t have time to realize.

Eve kneels down and caresses his hair. She takes a small box out of her pocket and starts sliding it back and forth on the man’s head.

Victoria and Adam are standing by her in silence.

“Some brain areas are still in good condition,” murmurs Eve. “Perhaps I can extract his memories...”

She continues for half a minute. When Eve stands up, she looks anguished. “Now I know where Nihil is.”

They turn towards the man in dark clothes, lying on his back along a boulder, his arms wide. The dark velvet jacket, with a badge of Lion of St.Mark, hangs loosely on each side. His shirt has a large rent in the middle, from the stomach to the breastbone. His organs are reduced to slush. A brown liquid is dripping from the wound.

“It’s him...” whispers Adam.

“Who?” asks Eve.

“The guide.”

“The guide?”

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“Yes. Or rather, the one who replaced him.”

Eve kneels down and lifts the Venetian’s mask with the tips of her fingers. Then she stops.

Security General Headquarters.

“I have just received the report from Venice,” announces C573Y’s assistant stepping into the room. “Wing’s murderer is the Wonderful Islands killer! The real guide was found shot dead in an alley.”

C573Y takes the text and leafs through. “According to the Secret Service Wing belonged to the Elects too.”

“More than a suspicion. Eve Dirac was there. She tried to stop Nihil’s killer.”

The images of the murder flow in their mind.

C573Y stretches back in his seat and crosses his fingers on the nape. “Eve Dirac sided against Nihil.”

“Internal struggles, clearly.”

“This could come in useful.”

“Unfortunately we don’t know their purpose.”

“Wing is not a criminal anyway!”

Puzzled, they look each other in the eyes.

PLOT

@ Council room, 7 AM.

The ten councilors dressed in white are sitting in a ring.

“Nihil knows well Martin’s killer,” begins Eve.

Everyone holds his breath.

“Are you sure?”

“The two were friends.”

“How possible?” asks a councilor.

“Perhaps we have seen the killer...” says another.

“I will show you.”

In the middle, appears the hologram of a man with a dark complexion.

“He was here!” shouts out a councilor.

“I wouldn’t be surprised if Nihil killed Linh and Widman, too,” adds another.

“Didn’t you suspect anything?” asks Victoria.

“We don’t know him enough,” explains the senior councilor. “He said the dehumanization was not for him. He was the boss, we did not insist.”

“Where has he got to?”

“I have scanned Martin’s brain.” Eve can hardly speak. The memory of her killed companion is burning like an opened wound. “Nihil lives with a new community, in this villa.”

The shadowy figure disappears. In his place, a low altitude shot appears. The building is at the center of a lawn bordered with willows. In a pond, there are pink flowered water lilies with bulrushes on the right. Three little children are whirling around, another is riding a tricycle.

The councilors are dumbfounded.

“A new community?”

“I remember Nihil’s face when Wing proposed the creation of the Council. He flared up and threatened to leave. But, when the assembly approved the proposal, he remained silent.”

A murmur spreads.

“The truth is he hates us. Otherwise he wouldn’t go to this point.”

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“Without his plan, we will not be able to embark.”

The councilors exchange fearful glances. But they keep silent.

Adam is puzzled. Then he stands up, and inspecting the nine members, starts: “I remind you that the best way not to achieve a result, is doing nothing. Tell me, do you really want to give up this project? Our objective is still achievable. It will not only in a few weeks, when the Caravels are sailing.” He addresses Eve: “Why don’t you contact Defense?”

She folds her arms. “I don’t trust them.”

“Do you really believe they can inform Security?” asks Adam. “You see, the recollections you transferred to me made me think. After your suicide, Defense set up an inquiry into the scandal. When investigations were closed, General Marcus Rand made sure to tell you it was all a plot against you. Did you ever wonder why?”

While Adam is speaking, Eve’s memories follow one another in the councilors’ minds, like flashbacks.

“I was highly thought of in the Army. When I resigned, Defense asked me to stay.”

“Did they care because you were a good soldier or rather for some other reason?”

“When Rand contacted me, he seemed to know everything about me and the Elects. I suspected he knew our hideout.” She stops a moment. “All this attention appeared excessive to me.”

“They never passed any information to Security. They always protected us, because you are among us, mummy. It doesn’t matter if we don’t know the reason. Now we are running the risk of having our mission canceled. We must ask their help to size Nihil.”

Eve is pensive. “I’m going to speak with Rand.”

“How can we recognize Nihil?” asks a councilor.

“He must occupy an android’s body. We will identify him by his programs,” answers Eve, adding a few technical details. She has a resolute tone, nothing can stop her.

Adam smiles. “Now you are the woman you were, mummy.”

The senior officer has a satisfied look.

Meanwhile she continues: “Let’s pass to the plan. The villa is inhabited by about one hundred people. We don’t know what weapons they have, but we must be ready for all eventualities. We need the right equipment.”

“What type?” inquires Adam.

“War androids. The most advanced ones. I know how to get them.”

FUNERAL RITES

@

Adam walks fast through a tunnel, holding in his hand a torch. He emerges in a cave, then turns to his right, towards a distant glimmer. He reaches an enormous cavity. The vault is hidden by the shadows. In the middle, a catafalque rises, on which lies a corpse wrapped in a purple shroud. He stops in front, gazes at the waxen complexion, then bends forward and kisses him on his forehead. Finally he withdraws into a corner and stands still with bowed head.

One after the other the followers come in, each holding a large lighted candle. They place their lights in front of the body and arrange themselves in a circle. Two women wrapped in white veils, one blonde and the other dark, enter. They move so gracefully, that they seem to skim the floor. They kiss their dead friend on his cheeks. Then they stand still by his side, staring at him.

The fair-haired woman raises her head. "Today Martin takes his leave of us." Eve's limpid voice soothes the participants' pain: "A man of sound principles, who dedicated his existence to a noble cause, an example for all of us. When I met him, he involved me in a passionate discussion. That's how I discovered the many ideals we had in common. He took my case to heart and in the following days introduced his friends to me. Thanks to him, now I belong to the Elects."

She gets her breath. "A few days ago, he asked me to participate in the reproductive rite. He insisted and convinced me. Thanks to him I came to life again."

A surreal atmosphere shrouds Victoria.

In a few weeks the Elects have given her friendship, love, a son. And now they introduce her to one of the most painful and intimate experiences: death. And to the most devastating one: war.

She takes a step forward and, without even realizing, she speaks: "I have always admired Martin for his social commitment in favor of weak people and minorities. Thanks to you, I have known him personally. From him, I have had a son. I liked his enthusiasm and generosity. Frankly, I liked everything about him. With you, I grieve over our dearest friend."

She closes her eyes.

It's Adam's turn. "I spent only a few days with my father, but I have the honor of knowing him profoundly. Martin was unique. The ideals he fought for, the experiences he gained in many struggles, are all inside me, as well as his memories and emotions." The impetuosity of his speech carries the audience away: "In this very moment, I am experiencing them and I can assure, it is a shocking experience. While speaking, he transmits his father's

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experiences to those present. “I want to share this treasure with you.”

The followers strike up a sad melody, while the light in the cave increases. An immense cavity crossed by a forest of stalactites and stalagmites, appears. The tinkling of the drops from the vault mixes with the singing.

Silence falls.

A vortex of light bursts out of the corpse, then vanishes. One after the other, each participant undergoes the same metamorphosis. Finally the cave is swallowed by the darkness.

THE LAWS

Truth, collaboration, responsibility and utility generated over the centuries opposing philosophical and social systems. While religions favored collaboration, the economic authors ranked utility in top position and the dictatorships assigned the last one to truth.

At the beginning of the 21st century, the world was still ruled by laws inherited by an anachronistic past. This had contributed to the development of societies, that, even considering themselves advanced, were still dominated by social conflicts and were hardly able to progress.

It was already a period of great changes. The fast extension of life made think that in a few decades man was going to reach semi-immortality. Artificial intelligence, biotechnologies and genetic enhancement, tools with almost a boundless power, were almost at hand. In this continuously changing environment, scholars started to study how to reformulate the laws to draw the greatest benefit.

The initiative was taken by enlightened minorities. New rules were defined; most of them compatible with the laws of the existing societies, but anticipating their directions. The voluntary participation generated a strong identification. The sharing of values became the real glue and Net the tool to cancel geographic borders and nationalisms.

The new laws minimized the judges' discretion. Through the application of harsh penalties culminating in the expulsion from the community, they removed the social conflicts. The trust in the institutions had triumphed, judging become marginal.

Here below is reported the hierarchy of values of a community forerunner of the new epoch [\(16\)](#).

1. The courage of telling the truth

Truth, that is the correct description of reality - a prerequisite for scientific, technological and social progress - became the first value. A choice justified by the fact that for the first time in the history of mankind, it was possible to verify the reliability of the statements, thanks to technology. Life extension made difficult to give false testimony. The definitive exclusion from society as a punishment, led to the progressive disappearance of betrayers, cunning fellows, impostors and liars.

2. The principle of love

The understanding of reality can be achieved thanks to the collaboration among individuals and systems, that is by means of love. Wicked people, thieves and murders were removed.

3. The inversion of the principle of responsibility

In a semi-immortal society - in which not to be harmed is a priority - is punished the one who damages the others, independently from his intentions and reasons. This principle, when it was proposed at the beginning of the 21st century, raised doubts, since at that time, damages being equal, it was common to punish a wicked person but forgive a good one. The third principle removed the judges' discretion and was effective towards all those not enough motivated by the call to rules. Bad people and fools were removed.

4. The utility principle

Utility, a mainspring for the comprehension of reality, needs to be counterbalanced by the previous principles, in order not to exacerbate the opportunistic behaviors. In the past a corporation pursued the profit, today it is followed on condition of not telling the falsehood. Parasites and idlers were expelled.

5. Aesthetics

The components of the aesthetical experience - harmony, universality, originality, completeness and essentiality - allow to evaluate the level of beauty of every work of nature and intellect, in order to improve it over time.

In the 21st century, the inclusion of the aesthetic sense in the artificial intelligences, generated digital artists and scientists able to excite empathy. A great result, that, induced mankind to the acceptance of the digital people. Thanks to their new characteristics, the digital beings started a frenzied evolution, that culminated a few years later when they changed into a people of superintelligences. A new Enlightenment was born.

6. Amusement

The introduction of amusement in the law system, a real novelty, was possible thanks to the indefinite extension of life. This last allowed everybody to reach sooner or later success and happiness. Envy was relegated among the sterile feelings and replaced by the awareness that the real improvement can be achieved only bearing in mind the experience of lucky people. An optimism centered on the trust in the future spread. Amusement and creativity amplified each other. The improved economy lead to an economic boom, the families were strengthened, structurally happy communities came alongside the traditional society.

7. Merit

The hierarchy of power founded on merit - that is the ability to respect and realize all the seven principles - raised the efficiency in the management of society and increased the citizens' confidence. Harmonious communities, setting an example for the society on the whole, were born.

The extension of these principles to the digital beings, favored the reciprocal comprehension of the two races and their pacific cohabitation. These same values induced

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the artificial intelligences to give hospitality to the souls in their virtual worlds and to adhere to the Confederation of the Solar System. The principle of love, that is collaboration in diversity, had triumphed.

(16) ILabs

<http://www.ilabs.it/Home.asp>

<http://www.singularitysummit.it/defaultEN.asp>

ALLIANCE

General Marcus Rand goes out of the headquarters at the end of the interforces meeting between the Defense Secret Service and the federal agencies. The morning had begun with a survey of the situation. The afternoon was dedicated to the analysis of the problems and to the definition of the objectives. These meetings, held systematically, strengthen the coordination, and above all give results.

The virtual secretary reminds him of the meeting with the President of the Confederation, fixed for the following day, during which he will present a report on the new technologies. But for today that's enough. He gets into the ovoid waiting in front of the entrance. "To the 7th Tower."

The aircraft gains height, threading its way through thousands of vehicles crowding the aerial motorways. It shoots into a corridor between two rows of skyscrapers, whose wavy forms are reflected on glass surfaces of others, and passes by a spiral-shaped building, that reveals its carbon core from the shining black of its load bearing structures. Below, wide streets and squares adorned with arches and architectural barriers. From time to time, multicolored walls and green spots hiding the entrances to the underground town. The ovoid flies over a park, where evergreen gardens and sheets of water alternate, then heads for a group of buildings silhouetted against the blazing red sky.

It lands on a terrace projecting from a tower. The officer enters the restaurant. The head waiter takes him to table 514, from which can be enjoyed the magnificent sight of the setting sun gilding over the snow capped mountains. A melody spreads from a corner. The artist, a man in his early thirties, his deft fingers gliding over the keyboard of a piano: an instrument as ancient as the Chopin nocturne he is playing.

A young woman with red hair comes up to him. "May I sit at your table?"

He stares at her green eyes. "Have we met before?"

"Long ago. You can verify it from my identification code."

A black miniskirt and a silk blouse emphasize her sinewy build. Her hair adorned with light threads is gathered into a ponytail behind her thin neck. She smiles, while transmitting the file to the man's neural chip.

"Eve, what a pleasure to see you again! I wondered many times where you got to. Congratulations, your gynoid is charming."

He stands up, draws a chair to him and invites her to sit.

"Gallant, as ever." While sitting down, Eve observes the man. With his imposing height and the eyes shining like sapphires on his tanned face, he is splendid.

They start with some jokes. Then they go hand in hand to the dance floor. She puts her

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arms round his neck, while the man seizes her by the waist. They begin a slow dance.

“Marcus, I am grateful to you for having identified the real culprits.” Eve rests her head on his shoulder.

“I have never doubted your innocence.” He looks her straight in the face. “But you have come here not only to see me... What can I do for you?”

“A few members of our community are preparing a terrorist attack.”

The officer stops dancing, while the woman straightens herself, grabbing him tightly.

“I need a team of combat androids.”

The two stand still in the middle of the floor.

“This kind of work is no concern of yours. Tell me all details, instead.”

“You don’t understand. I want to solve the problem by myself. If you accept, I will keep you informed; otherwise I will not reveal anything else.” The woman gives him a piercing look. “What’s your decision?”

“I am sure you are the most qualified person for this kind of work...”

“So what?”

He draws back. “But you cannot dictate your terms. You are in trouble up to your neck. Security is hunting you. They are convinced you and your boss are the instigators of a series of homicides. They suspect you are preparing an outrage against the Caravels. A few days ago they asked after you.”

“What did you tell them?”

“I have known you for a long time. You can’t be mixed up in terrorism. But you are a suspect. They are searching for you everywhere. Your days are numbered, I fear.” The officer stops. “I must speak to the General Staff.”

He remains absorbed. She gazes at him, trying to read the trend of the discussion from the expression on his face.

A minute later, the man starts: “I offer you our protection in exchange for your engagement to work for us till the whole matter is settled.”

“I want a wide margin of action.”

“We will decide the strategies. You will carry out the military operations.”

“I am going to have the androids, obviously.”

“We will place all the means at your disposal, but until your assignment has been confirmed by the Staff, we don’t want to commit ourselves. You must steal them.”

A naughty smile appears on Eve’s face.

“You will make a false request for intervention, a joke for you who knows the information systems better than anybody else. The headquarters will place at your disposal equipment and crew. You and your team will get into the androids during the loading of the software, taking its place.”

At the end of the dance, he takes her by the arm. “Now let’s enjoy the evening.”

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They reach the table and admire the night landscape. A kilometer below, the town is an uninterrupted expanse of lights. Small aircrafts speed around the towers and a spaceship with two thousand seats is landing in the new spaceport.

A waiter arrives with an enormous bunch of red roses.

“This to show you how much we appreciate your work,” says the officer. He looks straight in Eve’s eyes. “Defense needs people like you.”

She wavers. “I cannot.”

“Why?”

“I must carry out a project.”

“What’s it about?”

“One day I will tell you.”

They have a marvelous dinner: abyss fish and pollen from the sea flowers of Europe (17). At the end, the woman touches lightly his hand. “Thank you, Marcus.”

“This evening I have lived emotions I thought definitely lost.”

She has a serene look. “I am no longer the woman I was. What you see is only appearance: now I am using a program that simulates my past behavior. The project I have spoken you about requires much greater capabilities, and I can face it only because I am not the same any more. Do you want a demonstration?”

“Yes.”

“Are you sure?”

“I said yes!”

“OK, but after do not complain.”

Eve stares at him. The man feels stunned. He tries to put his hands up, but he cannot move. He is going to shout, but no sound gets out of his throat. While he wonders what is happening, his memories start flowing unrestrainable. His body and his mind belong to somebody else!

He collects all his energies. “Stop it!”

Still confused, he shakes his head. “What’s happened?”

“I got into your brain through the neural chip.”

“You violated the access code!”

“Don’t worry; I will not reveal it...” Eve chuckles. “Do you want a description of your day?”

“Forget it. Tell me how you did it, instead.”

Eve becomes serious. “I have installed programs I created myself. I am very different from anyone else in Net, but this is the direction they will evolve.”

Her eyes are sparkling with joy. “I am going to guide them.”

(17) *Jupiter satellite.*

RAID

“I am finishing the controls,” announces the robot, tapping Eve’s shoulder with one of his eight stainless steel legs.

She lowers her eyes over her body, an armored android. Now she is in the army headquarters. Her companions are lined up along the corridor, sparkling in their metal shields, still lifeless. The belts holding her against the wall open, and she takes a few steps forward.

“This model was delivered a few days ago,” goes on the technician quivering with enthusiasm. “A jewel. Ah, sorry. I must continue my work.” He bends towards another arrival.

Half an hour later, he gathers the group. “Twenty. You are all here. Now call at the armory, then go to the garage. The rest of the equipment is in the vehicles. Have a good day!”

Ten minutes later the Elects are speeding along a country road. All around, an expanse of light green wheat. The hills low on the horizon are covered with a clear blue haze softening the details. From time to time, the bends of a river with slimy waters appear in the distance. They reach a villa surrounded by railings, turn into the first side path and drive along up to the back. They park behind a mulberry-tree and launch a drone: an azure disk as large as a doughnut, with three tiny rotors at its center.

Eve activates the virtual reconnaissance. The immense mass of information processed by the on board computer is transmitted to her visual field. She finds herself in the digital reconstruction of the house. She runs through the rooms, and moves instantaneously from a place to the other. No one!

“We must find out where they went,” she cries to her companions. “Follow me!”

With a jump, they get over the fence and plunge onto a lawn.

“You, inspect the park,” she orders eight raiders. The others encircle the building and break into it with leveled guns. Eve directs five androids to the second floor. Three others walk down to the basement, the rest remains with her on the first floor.

They enter the dining room. Deserted. Tables decorated with flowers and elegant tablecloths. In the air, the pungent smell of rotten food.

“The dinner was prepared a few days ago,” murmurs a raider.

“What a strange scent...”

They pass next to a stately branched candlestick. “Incense. They held a ceremony.”

They reach a corridor. Small clean rooms are along both sides. Beds prepared carefully. Narcissus in ceramic pots in a row on the shelves. Not a speck of dust. The linen arranged precisely in the drawers; nothing out of place.

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They stop in front of rucksacks and suitcases, at the foot of the beds. “They didn’t take anything away.”

“But they left a few days ago...”

“They are coming back!”

“I know what’s happened,” Eve cuts them short.

In her visual field appears a message:

RUN DOWN TO THE BASEMENT, QUICK!

She dashes down the stairs, flings open the steel door of the basement and jumps over the last steps. Now she is in a white room. A few electronic instruments are lined up against a wall. It’s cold.

“I am here...” murmurs Victoria from the adjoining room. The girl is standing in a corner, with a pale face, pointing at a case with a trembling arm. Coagulated blood on the edge. Inside, in a dark red pool, three heads the tops of the skulls missing.

A raider examines the equipment: “That’s a scanner for the brain digitization, and those look like furnaces.” He touches lightly one of them. “Still warm.”

“They were cremated!” shouts Victoria, with her eyes starting from her head.

Eve returns to the first room. She bends over a machine and sets it running. The screen fills with data.

“A short while ago, this tank contained about a hundred souls. But now it is empty.”

Victoria looks like collapsing. “Another mass suicide...”

Eve stares at the numbers. “We entrusted Nihil with finding a system to embark us on the Caravels, but he disappeared. He wants to replace us!” She stops: a message arrived. “I must go.”

Eve strides upstairs, up to the second floor. She enters a corridor covered with fitted carpet. At the end, towers an imposing wood door. The meeting room. An octagonal table at the center. Yellow chairs with comfortable arms like the petals of a daisy.

Adam and three other raiders are standing still in front of the life-size hologram of a dark android standing out from his followers who are along a wall. In a corner, is a server. Eve exchanges a few words with her companions, then bends over and starts it. After a few minutes, she succeeds in logging in and begins inspecting the files.

“I found his diary!”

The others stop rummaging in the cabinets and turn in unison.

The text shines above the table. A few lines are highlighted in yellow:

“The Council is spying me. I punished the novice and Wing, but now all of them must die.”

“He will avenge himself with a latest generation virus, I am afraid,” articulates Eve. “Impossible to neutralize it.”

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She transmits a message to her companions in Net: they must abandon their hideout, immediately!

They continue reading:

“Yesterday I tested the followers' preparation, asking two of them to commit suicide. The younger drew back. The others encouraged him, telling that in a short time all of us would be facing the same fate. On my side, I explained in detail the reasons for the act. At the end I read a sincere impatience in his eyes.”

“Madness!” cries a raider.

They pass over the description of the suicide and arrive at the last lines:

“Now that I have collected the souls in a container, I must reach the transmitter and activate the transfer. On my arrival, I will be carried in triumph by the population. Alpha Centauri will be my kingdom.”

They are all motionless, staring at the transfer date blinking at the bottom, blood red.

NIGHTMARE

@

Night. Eve is lying on a couch, prey to a troubled sleep.

She is standing at attention.

“I want to let you know that I am going to leave the Army.”

The colonel stares at her. “We have just promoted you captain. Why this decision?”

I have been contacted by the Superior Institute of Artificial Intelligence.”

“We have high expectations on you. Don’t you want to think it over?”

“I am honored to serve our country. But very soon I am going to realize the dream of my life.”

The president of the Certification Committee sits at the head of the table. “Welcome, Doctor Dirac. Our work requires competence and integrity. As you can imagine, there are many interests at stake and the pressures are strong. In spite of this, we always succeeded in avoiding interferences.”

“The evidence is incontestable,” states the president of the committee.

Eve reacts with anger: “It’s all false!”

“We must avert every suspicion from the institutions.” He stares at her in silence, and then articulates his request: “I want you to resign.”

Words like daggers. “You, who knows me better than anybody else, have doubts about my integrity?”

“I don’t question it,” he answers with bitterness. “But we cannot fight a battle already lost from its very beginning.”

The waves break over the rocks.

Sprays of foam.

Red spots, larger and larger.

She is lying.

Her limbs broken,

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her empty stare towards the sky.

“Nihil is on board.

We will not be able to embark on the Caravels.

It’s all over!”

*A multitude of spaceships, big and small, is lined up in front of three enormous starships.
Silence is total.*

“Three, two, one, zero!”

*A thrill runs through the crowds while a dart of fire spurts from the bowels of the three
giants.*

Suddenly, a globe of fire widens from the flagship.

A moment later, everything disappears.

Eve wakes up, bathed in sweat.

FIGHT

The people of the Caravels were proud of their civilization and believed in a future of progress. But illness spread and civil customs broke down. War followed. At the beginning fate gave the illusion of victory first to one opponent, then to the other. Then, by a frenzied course of events, it bereft both of them of all hope.

0101 010101001

MARS

Caravels.

C573Y is on board, supervising the security of the Caravels. At the end of the day, he goes to the bridge and through a wide window admires the red planet that appears in its entirety twenty thousand kilometers away. The sandstorm that spread all over it during the previous weeks, has finished and now the canyons that furrow through the equator, like deep wounds, are visible.

The android magnifies the image with his electronic eye. The inlets branching off from the main flumes appear in detail. He can see the face he climbed a few months before and not far away the marks of the water erosion. In the northern hemisphere, imposing volcanoes rise on an expanse of red lava. At the foot of the highest one, the Olympus Mons, a glitter: it is Newton city, a densely populated town in continuous expansion that like the other settlements of the planet differs from the earthly ones in the almost total lack of human presence.

Certainly man, who started the exploration of Mars with a great enthusiasm three centuries ago, could not imagine such a conclusion.

Towards the end of the 20th century the first probes were sent and in the following years many others reached the red planet. They transmitted a considerable amount of information, but it was only in 2021 that the most interesting discoveries took place, when the robots identified a few colonies of bacteria in the polar caps of carbon dioxide and in the water deposits under the surface.

The discovery of extraterrestrial life forms did not awaken surprise, as in the previous years the fossils of organisms populating the planet billions of years before, had already been found. What really struck both the scientific community and the population, was the likeness between the Martian and the earthly DNA. Some genes were even identical. This discovery confirmed the hypothesis of a common origin. When, some years later the same genetic sequences were found inside the tarry surface of a comet, the definitive confirmation arrived: life had been born in the depths of space and from there spread to the solar system planets.

These findings increased the enthusiasm for a human mission that took place about twenty years later. A permanent base was built too. But the adverse environment, forcing the use of pressurized suits and vehicles for scouting and living for the remainder of the time in the base, caused adaptation problems that even the oasis of green inside the domes could not eliminate. After a few years the explorers returned inevitably to the Earth. Then, in the second half of the 21st century, the supporters of human expansion suggested starting the plan of modification of the Martian atmosphere that had attracted so much attention in the

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euphoria of the first explorations.

First of all it was necessary to warm the planet with enormous orbiting mirrors so as to free the gases entrapped in the surface. In their turn, they would increase the temperature thanks to the greenhouse effect, and the introduction of synthetic gases able to retain warmth would do the rest. In only fifty years the pressure would rise just enough to allow the use of a simple respirator and most of all the building of the big pressurized domes necessary for a large population.

But this was only the first step of another modification, for which a term, as grand as the idea which it evoked, was coined: terraforming. It would be possible to create seas and oceans, breathable air and even a terrestrial ecosystem, heating the planet further, in order to melt the frozen water in the surface, and to introduce organisms able to enrich the atmosphere with oxygen. Mars would become inhabitable, but with very long time scale: even a thousand years!

For the moment the supporters asked only for the approval of the first part of the plan. They put forward several forecasts, that, in absence of an authorization, did not paint a rosy picture of the humans' stay on the planet. Human presence would continue to be restricted to the scientists' small community and to the few tourists willing to bear the financial burden as well as the long voyage and the hostile environment.

The opposition had different opinions. According to some, embarking on such an expensive project did not make sense, because the advantages would be clear only in the long term. The skeptics thought that even after the conclusion of the first phase, only a few would accept to live on Mars, and concluded that the planet would be still uninhabited for centuries.

In the end, only a few experiments started, but they were interrupted after some years, at the first signs of economic crisis. Later on even the small base was downsized. The scientists gave up their large scale studies and concentrated on essential research.

In the second half of the 21st century, the technologies were developed which made possible the production of androids and robots that were able to take decisions autonomously. It was a real breakthrough that, with the automatic factories, would make human intervention in the building of the settlements superfluous. But these new techniques remained mostly unutilized because of the persistent lack of interest in the red planet. Thus the project to modify the Martian atmosphere, which from time to time was revived by incurable dreamers, remained a pure academic exercise.

During the 22nd century, while the colonization of Mars was making slow progress, the events destined to change the future of the red planet, matured. The souls and the artificial intelligences populated the virtual world and integrated their institutions with those of Earth in a long process that culminated in 2098 when Net joined the Confederation. This result was amazing because the virtual beings obtained in only a few decades what men had achieved in thousands of years, but this was inadequate for the new people, whose enthusiasm for the acceptance soon turned into intolerance towards the innumerable restrictions imposed by the central government.

In the final analysis, every friction was caused by the profound differences between the two races: the life extension, the widespread use of genetic engineering and artificial prosthesis, had allowed man to reach goals inconceivable for the previous generations. But nothing in

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comparison with the superintelligences' results, such as to widen dizzily the difference between the two races.

In many Net creatures intolerance was replaced by anger at being confined in the virtual world and not participating in government and economy of Earth.

It became clear that the two civilizations were going to clash. To avert a war, a federal committee was charged with settling the issue. The sages suggested separating the races physically, in order to let them follow their natural evolution, and proposed entrusting the red planet to the virtual beings so that they could realize their digital and material dream. The Net creatures accepted the plan with enthusiasm as the adverse environment was not a problem for those that could live in the bodies of androids and robots. So the planet man had abandoned so hastily, started being considered by the virtual beings as a Promised Land.

At the beginning the project of colonization was opposed by part of the humans, who were asked for a financial contribution, and it took off finally in 2215 when it became clear the problem had to be solved at all costs. Now, the Martians have realized their dream: the planet has become the fourth state of the Confederation and its population belongs almost totally to the virtual race. The inhabitants live in the servers while a minority resides in the androids and robots populating the colonies. The human presence is restricted to a few researchers.

The colonization proceeds so rapidly that today the whole planet is an immense yard. New domes are rising everywhere, thanks to a streamlined production system and to the supervision of the Martian Coordination which, as soon as a settlement is completed, moves equipment and automatic factories to another place. According to recent rumors, experiments for the modification of the Martian atmosphere are about to start again.

From an interview with the President of the Confederation (2296/03/08):

“The first time I visited the red planet, I was surprised by the Martians' good mood. An attitude just the opposite of man's who long before, after a short and painful stay, had abandoned the idea of colonizing the planet. When I asked my guide the reason for such optimism, he answered ‘Net provides every kind of satisfaction, even those man will never experience’. While I was thinking it over, he added that the material world is a source of great satisfaction for the Martians, as well.

The following day he took me to a hill. While we were enjoying the sight of the desert, he announced that just below a big town would emerge in three years.

I met him again at the inauguration. On that occasion, he explained that Martian optimism springs from the certainty of realizing even the most ambitious dreams and that the new town was just one of their many successes.

The departure day arrived. While the spaceship was orbiting around the planet, before plunging into space, I observed its surface glittering with light. We passed by the space yards where the construction of the Caravels had begun.

I watched them spellbound: the colonization of other star systems is too difficult an enterprise for man, but a fantastic challenge for the virtual beings, which can enjoy every step. I recalled that the mission will be guided by the same beings, that about a century ago

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had proposed the colonization of Mars, and that the new enterprise will employ the technologies developed in the Martian experience.

Then I understood: the Mars colonization as well as the Alpha Centauri project and the many others that will follow, all belong to a single gigantic plan. Now Net people are really mastering both the virtual and the material world.

During the return voyage, I read a few statistics about the red planet. The crime rate is the lowest in the solar system; self-fulfillment and solidarity are shared values. Progress is an aim for which it is worth living. I wondered if man will ever include these marvelous objectives among his priorities.

I closed my eyes, and I realized: we are too similar to the reptiles populating the Earth millions of years ago. I felt like a prehistoric animal.”

0101 010101001 “The new species” (2298)

DEPARTURE

Mars, August 3rd 2300.

They swarm out of towns. They advance into the stony desert, climb the hills and the promontories and then stop in groups, millions of androids and robots, glittering in the sunshine. All of them turned towards the same sector of sky vibrant with life.

Twenty thousand kilometers above, a multitude of spaceships, big and small, is lined up by the orbiting stations, in front of three enormous spheres of titanium and beryllium.

Time has stopped not only here, but also in the other planets of the solar system, in the icy outposts of the deep space as well as in the comfortable worlds inside the computers. Everywhere. And everybody enjoys the same striking realism offered by virtual reality. Everybody lives it.

In the spectators' minds, the images of the Martian surface crowded with metal creatures and the superb views of the Caravels at close range, follow one another. Some reporters run through the endless corridors, others speak excitedly from rooms packed with androids and equipment, but only the privileged few are on the bridge. All of them praise the characteristics of the Caravels, itemize the steps of the project and interview its makers. A deluge of information inundates the inhabitants of the solar system.

“We are lucky to live this historical event.”

“This is the apotheosis of human civilization.”

“A new one is born. Nothing will stay the same as before.”

Suddenly all the shots concentrate on the Caravels. The countdown is finishing. Silence is total.

“Three, two, one, zero!”

A thrill runs through the crowds and a moment later, a dart of fire spurts from the bowels of the three giants. A powerful jet of protons and helium penetrates the vacuum silently. The Caravels shake, and then leave the orbit lazily, towards the star-spangled sky.

In the middle of the bridge, a large space pervaded by the buzzing of the nuclear propellers, stand the Fleet Admiral and his officers, in full uniforms, turned towards the panoramic window. Now the thousands of vessels that crowded around the Caravels are only twinkling dots.

“We will colonize other worlds.”

No one is more touched than they are. They have conceived this project and believed in it. They have followed its realization step by step, and now the fateful moment has arrived, they entrust their future to it.

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C573Y is among them. Seemingly, he shares the general excitement, but actually he is deeply worried about the many uncertainties weighing on the mission. As in the outward voyage, he will return to the Earth via a laser beam, but only after having fought the most important battle of his life. Not only his life.

IN ACTION

Huge spaceships of unprecedented complexity. Millions of parts that neither the endless controls carried out on each component, and the several integration tests, can guarantee totally reliable. After departure, alarms sound frequently.

Computers transfer swiftly the working load to the functioning equipment. An activity that only the redundancy, carefully planned by the engineers, allows to perform in real time. In the corridors an unceasing coming and going of maintenance robots and spare part carts.

Unavoidable software malfunctions, since not even the most powerful simulation programs can test billions of code lines thoroughly. The automatic repair systems intervene promptly, making changes and executing tests.

Security is on alert. If an enemy strikes, he will act just after departure. The antiviral programs inspect the most hidden places of Alphacity, the virtual town of the Caravels. Hundreds of warnings which require exhaustive checks. The physical world is guarded by Security. Androids with blue shields are marshaled on the bridge, as well as in the interminable corridors of the starships. Microscopic fixed and flying cameras lie in ambush, ready to pick up the least movement and transmit it to diagnostic programs that analyze the data with unerring precision. In the armory, hundreds of brand-new war robots, ready to come back to life at the first danger, are lined up along the walls.

On the third day, the spacecrafts enter the asteroid belt. They advance resolutely, protected by thick ionized gas armor to neutralize the cosmic powder. From time to time, powerful lasers dispel the absolute black space with sudden flashes, turning small meteorites into boiling plasma clouds. Ninety-eight hours after departure, the vacuum around the Caravels lights up with a dazzling glare, like a star. The beam of an antimatter gun has hit the core of a tiny comet, heating it to the temperature of the sun. Nothing left, matter turned into intangible radiation.

The atmosphere in Alphacity is electric. Moments of discoveries for its inhabitants, wandering, prey to curiosity, in the virtual town of the Caravels, considered a planning masterpiece. In their faces, one can see the joy of those who go towards a long awaited future, convinced of seeing it achieved soon.

@

Virtual town of Alphacity, quantum computer QC07A, Caravels.

There is a ceremonial atmosphere in the large semicircular hall, where the parliament and the government of the fleet meet for the first time. They are all standing, with the Admiral at the center, in full dress, turned towards the audience.

The streets and squares, the stadiums and theatres are crammed with people. Soft, ancient

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music spreads; music which speaks of the hopes of a people, their brotherhood and magnificent destiny. It is a masterpiece of a tormented genius, which the inhabitants of the Caravels are fond of because of its impressive style. Now the Alpha Centauri anthem is heard everywhere. When silence returns, the Admiral stares at the audience, then speaks:

“The moment that we all have dreamt of, has arrived. Ten years ago, at the beginning of the Alpha Centauri project, even though our Government understood the impact of the distance on the relationships with the homeland, it did not want to grant us autonomy. But we held on, because a people doesn’t need obstacles, but stimulating laws. Most of all a people needs the freedom to choose its own future, at least for a matter of survival. And we are destined to govern, since four light years will separate us from our homeland, a distance sufficient to make any influence impossible. They have understood, and today we are celebrating the birth of the Alpha Centauri Republic, the fifth state of the Confederation after the Earth, the Moon, Mars and Net.”

He sighs deeply. “A future full of uncertainties and bristling with difficulties is waiting for us. We are going to face it with serenity and determination. The Martian experience has strengthened our will and has allowed us to develop the techniques for widespread colonization.

Above all it is the ultimate aim of our mission to guide us. Alpha Centauri is an important step on the way, but only the first one. When we have consolidated our presence on the planet, the Caravels will plunge into space again for an everlasting adventure.”

The population replies with lengthy applause. The Admiral stretches out his arms. “Today I have the honor of presenting the parliament and the government to you...”

He grimaces, clears his throat and starts again. But he can pronounce only a few syllables, because the rest of the sentence sticks in his throat. His forehead is beaded with sweat. He staggers and props himself up against the table, but a moment later, his strength gone, falls to the floor. Still conscious, with bright eyes, he stares at the audience that is affected by the same disease at the same time.

Terror spreads through the vast crowds. They are about to start a desperate flight, when the same illness reaches them. After a few minutes, they all are lying on the ground, with glassy looks. Everyone can see a man dressed in dark clothes. Even though no breeze is blowing, his suit and hair are flapping as if in the middle of a storm. He approaches to touch their faces lightly. Then he announces with a devilish sneer: “I am taking possession of your life.”

The inhabitants fall fast asleep. When they open their eyes again, they look around with a puzzled expression, wondering why they are lying down. They stand up without effort, not at all troubled; all of them with the same expression.

REBELLION

In the middle of the bridge, shine the holograms transmitted from Alphacity. Some androids in blue uniform are observing them in deep silence.

“A viral attack of unprecedented power,” whispers a soldier.

“It seems to be finished,” points out C573Y. “Let’s start the population checkup.”

Programs able to reach the inhabitants and carry out the controls in a few moments are released. The screens fill up with statistics. The virus is inactive again. As for the people, most of their memories and personalities have been wiped out or profoundly modified. Only a few have been able to escape the infection.

The officer leaves the group and starts walking around. Reaching the middle of the hall, he turns towards his colleagues: “Equip the troops with antiviral protection and send them to Alphacity. Meanwhile, the medical corps get ready to intervene.”

The soldiers coming from another server, materialize in the town. At first the inhabitants observe them from a distance, speaking in low voices. Then they begin gathering in groups that move forward, threatening the newcomers with their fists and striking up more and more aggressive slogans.

“Get ready to fight.” The troops take up positions.

In unison, the masses launch an assault everywhere in Alphacity. The first rows fall under the shots of the paralyzers, but the following waves engage the soldiers in ferocious hand-to-hand fighting. It’s chaos.

“Too many; immediate withdrawal,” orders C573Y. “Introduce the soporific programs.”

The troops vanish. Then the inhabitants start falling to the ground, one after the other, like flies. The streets and the squares fill up with an expanse of bodies.

“Activate the combat androids,” goes on C573Y. In the armory hundreds of war robots are stored. These will guard the crucial points of the Caravels, above all the bridge, because only from there is it possible to coordinate all the activities.

A soldier gives a start. “They are out of control!”

“The sphere, quick!” shouts the commander.

A gigantic hologram of the ship appears in the middle of the hall. The outside shell dissolves, showing the structure below, a multicolored cobweb of cables linking rooms full of equipment.

“Those...” murmurs an android pointing to a few red points. “Those are the computers connecting the bridge to the rest of the ship. They have stopped working!”

All the lights become green. The soldiers don’t believe their eyes.

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“They have started again. Perhaps the problem is solved.”

A flood of instructions reaches the computers.

“They are still not answering!”

A light turns red. It starts flashing. Half of the screens fill with a deluge of data. The alarms sound deafening.

“Another attack!”

After a few seconds, the light goes out. Silence falls on. All the eyes are turned towards the center of the room, where a message is shining:

VIRTUAL POPULATION’S BACKUPS ERASED.

The updates of the population stored every day in the computer, have been wiped out.

“Access the stronghold”, thunders C573Y. The full copies of the digital beings are guarded in dedicated computers; they are activated just the time necessary for the retrieval of the updates. Only a top security protocol can supersede this system.

“Emergency procedure started.”

Silence.

Information flows on the screens.

Corrupted data, blanked databases.

If the population of Alphacity were destroyed, it wouldn’t be possible to regenerate it from the backups any more.

C573Y reaches the command armchair and sits down. He stares with a thoughtful expression at the star-studded sky from the panoramic window. He whispers just a few words: “They know more than we expect... Much more.”

Then he starts a report for the Security General Headquarters. Blood red letters:

“Epidemic broken out. Most of the population infected. Memories wiped out, personalities modified, hostile attitude to Security. After intervention with soporific viruses, our troops occupied Alphacity. Control of part of the ships lost including the armory, which is under enemy control. Backups for virtual population destroyed.”

APOCALYPSE

@ Virtual town of Alphacity.

The ovoid threads its way through the skyscrapers with reflections of the sky. Below streets, squares and gardens follow one another harmoniously. According to its creators, the intent was to build a town to the level of the mission entrusted to its inhabitants: the colonization of Alpha Centauri. However, the real purpose was even more ambitious: they meant to celebrate the end of an era and the beginning of another, in which the virtual population would become the architect of progress.

After a few minutes the aircraft heads for a sheet of water. At the center, is the Security Headquarters, a translucent cube connected to the town by thin bridges.

The ovoid lands on a terrace. C573Y gets out and walks towards a colonel waiting for him.

“Have the sanitary corps reactivated the hospitals?” he asks while getting near.

The other nods. “I have organized a visit. A vehicle is waiting for us in front of the entrance.”

They walk through a corridor crowded with soldiers checking their equipment.

“Our troops are not meeting with resistance. They have already reached the strategic points.”

“How is the assistance to the population going on?”

“The streets are covered with millions of bodies. We will need a few days to reach every zone.”

They walk down to a large square and pass a squadron intent on loading material on ovoids. A vehicle approaches, hovering half a meter above ground and the two get into it.

“To the hospital!”

They cross over a bridge and enter the main street. In front of them, thousands of bodies are lying on carriageways and sidewalks, inside shops and vehicles. The few who escaped the contagion are wandering around like ghosts. From time to time they come across soldiers and robots busy clearing the streets. The vehicle speeds towards the hospital, flying over the heaps of bodies.

The officer explains: “Many hospitals are already full. We have started diverting the arrivals towards other welcome points. The problem is that there are really too many sick people.”

He points to a few soldiers arranging the bodies in interminable lines on the sidewalks. “Often this is the only help we can provide.”

The atmosphere permeating the town affects the passengers, who fall into a stony silence.

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The automatic pilot brings them back to reality: “We have arrived.”

The vehicle stops in front of the entrance, waits for the passengers to get out and leaves towards a parking lot. The entrance is blocked by a crowd of civilians.

“They are the victims’ relatives who are waiting for the arrivals. We shall go in by a secondary entrance.”

They walk along the building towards a small door, in front of which a soldier is waiting. He takes them to a crowded hall, where the health officer is attending to patients together with his team. He leaves a little girl to an assistant and runs to meet them.

“I am sorry I cannot receive you better, but here the situation is critical. Despite exhausting work schedules, we are overwhelmed by new arrivals. Let us visit the hospital. This is the emergency room.”

The hall is crowded with bodies lying on stretchers and the few staff are working hard in the narrow space.

“Very soon we will not be able to accept patients anymore.” The health officer looks straight into his guests’ eyes. “How is the preparation of the clearing hospitals progressing?”

“According to plan,” replies the colonel. “But shortly they will be full. We shall be forced to leave the patients in the streets.”

The doctor heaves a sigh. “I see no alternative.”

They set out through a corridor packed with stretchers. On them bodies, with waxen complexions, lie motionless.

“Many arrive here without an identification code. In these cases we compare their genetic code with the data in the registry office, and then we publish their names and try to contact their relatives. Unfortunately our efforts are almost always in vain, whole families are usually infected.”

They step into a room where a mother is sobbing over her son’s body. “Here relatives meet patients.”

A few steps further, a man is asking to take away his sick wife.

“What do you do then?”

“We are happy to discharge the patient. We accept only those who are without any other assistance.”

The director becomes gloomy. “Our medicine is powerless. In my whole career I have seldom met such serious injury.”

“What type of service do you provide?”

“Only decent accommodation. This situation humiliates us, our mission is something else. How is the Computer Science Institute going with the treatment?”

“They are performing the first tests,” answers C573Y.

“They have been lucky to escape the contagion. How was that possible?”

“During the infection they were in the bunker for a meeting.”

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The guests take their leave. Now the situation in the main streets has improved. The victims are laid out in orderly lines on the sidewalks and the carriageways are crowded with troops and vehicles. The rescue teams are advancing into the side streets still covered with bodies.

The colonel begins: "Within a few days we will reach everywhere and with a bit of luck we will have a cure."

But C573Y shakes his head. "Even worse moments are approaching."

"Why?"

"The virus can reappear at any time. We must destroy it, but how? As to the treatment, we don't even know whether the damage is reversible. What is to be said about the fact that the population has attacked our troops, or that the ships don't respond to the controls anymore? The real reason is that someone is trying to take possession of the fleet."

"You mean we will suffer a new attack?"

C573Y thinks about the talk, of a few hours before, with the Computer Science Institute director.

"I'd never seen anything like that," the scientist had said. "The virus has modified thousands of code lines and destroyed whole databases. The personalities and memories of the population are not the same any more."

"When will a remedy be available?"

"I can only tell you that when similar cases happened in the past, the outcome was always unfavorable. I will provide you with a report in a few days when the analysis has been completed, but don't delude yourself."

"Did you identify the virus?"

"Our efforts to isolate it have been useless. It was built with an unknown technology."

ATTACK

C573Y is on the bridge, barricaded with five blue-shielded androids. He checks that nothing is left to chance, and then orders the computer to show where the enemies are. The image of the ship appears. The covering dissolves. A hundred lights are rushing from the armory into a corridor. They stop in front of a reinforced door.

The officer magnifies the picture. A black android gives orders with such an imperious tone that all obey in silence. He puts some plastic on the lock, and rejoins the group crouched at safe distance.

A detonation. A raider rushes to the hatch. While he is opening it, the others take aim. A volley of fire hits the Security front line. The soldiers react with a barrage of fire, but soon their resistance weakens. The invaders burst into. For a few minutes there are flashes and crackling of weapons. Then dead silence.

The followers make their way among pierced bodies and detached limbs, with dazed looks. For the first time, they have taken someone's life. From the end of the corridor, comes a moan. Nihil runs towards the barricades, disappears behind a heap of rubble; three shots in a row. He reappears with a triumphant smile, waving his group to set off.

At this rate they will reach the bridge in a quarter of an hour. C573Y has decided: he will activate the Defense procedure. An excessive precaution he thought, but the Staff insisted. He transmits a secret code to the Defense server.

A military program assumes the command of the starships. Now he is only a spectator, he feels uneasy. The points of the globe representing the invaders start flashing: target identified. New details have appeared: warehouses, equipment and cables. The secret defensive system of the Caravels, unknown to all the other computers.

Under the bridge there is a weapon depot. A list materializes. The program looks through the items, selects some of them. The floor trembles, it opens. A stainless case surfaces, its cover glides sideways. Inside are thousands of marbles. They start buzzing, take off, gathering into a black swarm. The main door opens; the spheres leave at full speed.

Nihil is placing some explosive on a lock. When the hatch bursts open, he throws himself to the floor rolling beyond the threshold, the nearest ones with him. The others catch just a glimpse of a dark cloud in the distance. An instant later, bangs, flashes and smoke. The spheres return from the end giving the final blow to the survivors.

Next to the door, is a red button, the emergency closing. Now the marbles are halfway, they will reach him within a minute. The button is few steps away, but the way is covered with bodies. He may waste precious moments. He jumps to his feet, hurls himself against the wall. A bang. The switch breaks into pieces. The door closes with violence, flinging the bodies aside. Nihil crashes to the ground, his arm aching. The spheres have not reached

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him! He counts the survivors, a dozen in total.

“We are enough to win!”

They stand up and reach an impressive titanium door.

The bridge is a few meters farther, full of floating spheres. C573Y and the small group of Security soldiers have withdrawn into a corner. Victory seems near, but the top officer doesn't feel at ease. From the screens, he inspects the attackers, concentrates on Nihil. His rucksack! When he noticed it the first time, he didn't pay attention. Too busy preparing the defense. Perhaps it hides such an awful threat, to undermine the outcome of the fight once more!

He addresses the computer: “What does it contain?”

The radar displays the contents. An invisible eye magnifies the surface and examines it. It stops in front of the identification code.

In C573Y's visual field, appears the answer. Very large letters:

*** ATOMIC BOMB – MODEL AB1521-X ***

The officer is petrified. “The nuclear explosives are kept in the most protected area of the armory. Even I don't have the authorization!”

“Nihil got the Admiral and his assistants to help him,” answers the computer.

“But when he reached the starships, they were already asleep!”

“The virus itself asked for the information, during the contagion.”

The officer glances at the rucksack. “What's the power?”

The answer arrives: enough to trigger the explosion of the helium 3! The nuclear fuel, millions of cubic meters of liquid gas destined to be burnt during the voyage to Alpha Centauri that now may cause an appalling conflagration.

“What about the other spaceships?”

“Would be annihilated in the thermonuclear explosion.”

“Move them away!”

“They will reach the safe distance in ten minutes.”

“Too late. When will the android program be accessible?”

“Impossible to forecast.”

Meanwhile Nihil is inspecting the surface of the armored door, looking for weak points. He quivers in contact with the cold metal: behind this last obstacle, victory is waiting for him. The final victory. Looking sideways, he checks his fellows. All lined up, aiming their guns, ready to pour a hail of fire onto the enemy lines. He dips his hand into his pocket, extracts some plastic. With care, he places it along the opening mechanism. His eyes are sparkling.

Then a tingling in his right arm, the same torpor is spreading from his legs. He doesn't think about it but his movements become awkward...

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He pinches his hand. No sensitivity!

He tries to turn. Impossible!

With his mind, he inspects his companions. All of them, in the same condition!

His sight is becoming blurred, he starts staggering. He leans against a wall. Soon he will crash to the ground.

He gathers all his energies. "Back to Net!"

They find themselves in a tunnel of Alphacity.

C573Y contacts the Special Forces: "There are a dozen of them left. You will find them in the 15th sector."

FINALLY ALONE

@ Alphacity tunnel.

Nihil is sitting with folded legs, his back leaned against a wall. Everything has been going wrong, really everything, from the very first moment. At his arrival, the streets were covered with bodies. The work of Security. He started the attack on the bridge, but then the black cloud appeared. He had just thrown himself to the ground, when the spheres skimmed over him. He escaped, but many of his companions came to a bad end.

"Those are war weapons that Security cannot be equipped with."

When he was breaking down the door of the bridge, he had the victory in his grasp. A matter of minutes. But Security took possession of the android program.

"I couldn't have imagined it."

He watches the eleven survivors who are in bad shape, with bewildered expressions. One stands apart with a haunted look, the rest encourage each other. This is what remains of his army.

"They were waiting for us."

He bows his head.

"How was it possible? The messages were encrypted. They must have linked the death of the informers with the Caravels... Security and Defense are allied against me!"

The plan he has devoted himself to for more than fifty years, on which he has founded his existence, is about to fail. The end of a dream, just when its realization is so near.

His life has no meaning any more. But he will not disappear anonymously and neither will he be waiting for the Special Forces to kill him! No, he will not give anyone this satisfaction. Nihil raises his head. Now his eyes are icy. He has devised a terrible revenge, which will guarantee his immortality.

He takes a little box out of his pocket and strokes its shiny surface.

"My children, I am entrusting you with an important task."

Nihil opens the lid. He stares at its contents before pouring them gently on the ground. Thousands of viral programs spread in all directions and slip into the cracks.

"Go forth and multiply. Most of all, when in twenty-four hours you outnumber the inhabitants, infect them!"

He closes his eyes and smiles: soon his programs will leave the cracks, covering the cave with a black velvet layer. He imagines them becoming invisible in the daylight, ready to contaminate every life form.

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"They will be my army." An army against which no defense exists. He goes through his pockets again. Then he opens his fist. In the palm, a transmitter.

Meanwhile the followers have gathered in a corner. The detonations, the smoke, the bodies torn to pieces. All vivid memories. They have lost their companions, but what is most important, now they risk the same end.

A youth sitting on a boulder, raises his head.

"What if...?" he whispers.

The others exchange quick looks. One of them points at Nihil, who now is leaning against the wall, absorbed in thought. "He will not surrender, nor will he agree to let us go."

They all remember what happened to the novice, some of them having been present, others informed. Too risky.

They disperse without adding anything else. A follower keeps on staring at Nihil, who, meanwhile, has closed his eyes. It is unlikely that such a favorable situation will repeat itself. The young man goes near the exit and sits down. He turns towards his guide again, who is swinging his head at every breath: he must be asleep.

Now or never! He springs to his feet, plunges into the tunnel. His companions give a start, someone thinks of following him, but in the end all of them remain paralyzed.

Nihil opens his eyes wide. He dashes off in pursuit. The followers throng round the exit, listening to the noise of the battle. The two reappear. The young man walks in front. Nihil is behind, pushing him forward. They pass through the small crowd and reach the center. Nihil darts a fiery glance at his prey. Then he addresses his most trustworthy followers: "Hold him tight."

But he doesn't jump at him. For a few moments, he scans the faces. "I will be back soon."

He goes to a recess, and from there observes the group. Now the followers have gathered round the fugitive and are speaking in low voices. A bad sign: they understand each other.

Nihil clenches his fists, but keeps still.

He had learned from the old man how to control his instincts and to act rationally. Techniques he has not put into practice recently, being sure of his superiority and concentrating on his plan.

Now these methods are essential to win back the followers' trust. But he must resort to all his self-control. He heaves a sigh and clears his mind of suspicion. With a quiet expression, he joins the group. He stops in front of the deserter. Two followers are holding him tightly by the arms.

"You cannot save yourself by running away," starts Nihil. "You saw what happened to the others. Security is looking for us everywhere. We can get off only remaining together."

He addresses the group: "I have more experience than everybody else. Without me, you all will come to a bad end."

At this point the youth raises his head. He is shaking like a leaf. "They will kill us," he stammers. He turns towards his companions. "Tell him we must surrender!"

The Alpha Centauri Project (Thinking worlds)

Nihil has heard the one word he had erased from his vocabulary. He flings an arm round the fugitive's neck and shoves him to the ground...

He stops, suddenly. He stares at his victim for a moment, then, without adding anything else, disappears into the recess again. Sitting on a rock, he listens to the followers' footsteps, clear at the beginning, then more and more distant. But he remains motionless, waiting for the events.

"Nothing is going to change, however."

WAITING FOR REVENGE

@

An endless walk, the way faintly lit step by step, without any point of reference. Along smelly gutters, across such narrow passages that it is impossible to go through except by crawling on all fours. With the risk of coming out in a blind alley. Many hours later, the tunnel widens out. The dirt floor is followed by paving. Nihil quickens his steps, but he doesn't let himself be carried away by euphoria: as he gets near the upper world, risk increases.

The tunnel ends with a flight of steps. He points the flashlight upwards. A few meters farther, a metal door, without a handle, without a lock. He reaches the landing, and touches its surface lightly. The door creaks on its hinges.

Nihil takes a step into the dark. The place lightens. He is in a green room, with stairs on the right. A flight of stairs that seems endless. He has got into the basement of a skyscraper. Up there he will be safe: they are hunting him in the underground world. He starts to climb holding on to the hand rail.

Every now and then he stops for a short rest, or raises his eyes in search of a destination that is never reached. Half a day later, the ceiling appears. He rushes to the landing and opens the door.

A blinding brightness. He shields his eyes with a hand and looks around. He has ended up on a terrace, beyond there is nothing but the sky. The highest skyscraper in the town.

Leaning against the security rail, Nihil looks spellbound at three skyscrapers standing against the light like black giants. On the opposite side, others reflect the flaming red of the sunset in their windows. He leans out. A few kilometers below, wide streets and elegant buildings, parks and sheets of water follow one another. In the distance a flock of birds alights on a roof. He forgets his anger.

On the horizon, a row of black dots appears: the Security ovoids! He rushes to a low wall and crouches down behind it. He keeps still, holding his breath. A hiss. Five shadows are running across the roof. The aircrafts disappear in the distance. He stands up and looks at the town again, but this time in a different mood: in his eyes there is grudge, nothing but an immense grudge.

"All this was to have been mine."

Nihil goes to the security rail again. With outstretched arms, he stares into space. Then he turns. In the middle of the terrace, towers a structure with a ladder, ending with a balcony, from which the majestic mast with the flag of Alpha Centauri soars into the sky.

He climbs the steps up to the balcony. Now he is really at the highest point of the town. The sun has set and its purple train is fading away. Above, the sky is getting dark, but the stars

The Alpha Centauri Project (Thinking worlds)

are not twinkling yet. A gust of wind.

He grasps the railing and climbs over it. Then he sits on the edge dangling his legs in the void.

He stares at the tiny transmitter in his palm. "Soon I will take my revenge!" He casts a contemptuous glance at the town. "Now!"

He doesn't transmit any signal. Better to wait until they find him. He smiles at the thought of his persecutors passing from triumph to despair. He remains on the edge, while the icy wind lashes his face and makes his garments flutter.

ALPHA CENTAURI

In the constellation of Centaurus, there are about ten twinkling dots that, according to ancients, draw the shape of a being, half man half horse, in the sky. There is a light more intense than the other, which stands out not by its size, but by its closeness to the Earth, just four light years away. It is the Alpha Centauri system, formed by three stars, two like the sun and a third so weak that it is not even visible to the naked eye.

Since the 21st century, the astronomers were searching in that system for planets with the characteristics of the Earth. In 2034 an inhospitable body close to one of the major stars was found, and twenty years later a second one with an Earth-like mass was identified at a little more than an astronomical unity from the other star.

In 2087, three probes were sent in succession. Two of them, after a voyage that lasted eighty years, reached the system and started broadcasting images of the planet while being far from it. After four years, when the first shots reached Earth, the emotional reaction was tremendous. The poles were covered with white caps and the analysis proved without a shadow of a doubt it was water.

The astronomers were surprised because they had expected an arid planet since that solar system lacks the big external bodies like Jupiter and Saturn that attract the comets abounding in water. The atmosphere was rich in oxygen. As the probes were getting near and new discoveries were made, emotion increased, and when a few areas of water were identified in the middle of a bare and rocky surface, joy exploded.

Other missions followed. Today two probes sent at the beginning of 2200 and transmitting data and images for about twenty years, are orbiting at about five hundred kilometers from the planet, while others are performing geological and biochemical tests on the surface. Thanks to them, viruses, bacteria and even plants and animals have been identified. It has also been discovered that terrestrial organisms do not survive in that environment, which is suitable for androids and robots instead.

The virtual beings realized that planet colonization was the opportunity to separate from the humans. But the costs were so high that the project could take off only with the financial support of the Confederation. Ten years ago, the Martian government proposed a large scale colonization to the federal parliament, and offered to accommodate the orbital construction yards for the spaceships, as well as the plants for the production of the androids, robots and automatic factories needed for expansion on the planet. The Alpha Centauri project was born. Then, without waiting for approval, the Martian government began the construction of the fleet.

The humans, who could not take part in the mission, tried to block it by appealing to the federal constitution that for the most important decisions requires the approval of the three ethnic groups of parliament: men, souls and intelligences. Later on several humans agreed

The Alpha Centauri Project (Thinking worlds)

to the project, on condition that the explorers made the planet inhabitable for man. In their opinion, it was indispensable for mankind to participate in the colonization in order not to be excluded from progress. They also proposed a plan to introduce into the alien ecosystem organisms capable of removing the life forms harmful to man and of reproducing the main terrestrial food chains. Their proposal was interesting because it confronted the fundamental problem of man's destiny, but since the very beginning it was strongly opposed not only by the virtual community but also by many humans, for whom the huge costs and the long realization times were just unacceptable.

The initiative was challenged for other reasons, too. Most people, who were not interested in matters of principle, asserted it was no use undergoing sacrifices, since the Earth was already on a human scale. Some, mindful of the disastrous human experience on Mars, maintained man would never consolidate his presence because of unavoidable adaptation problems. Others feared a difficult cohabitation with the virtual community, which would be quite numerous by the time the first humans could arrive, and ecologists refused every modification of the alien ecosystem, branding it as a senseless act of violence.

As the discussion was getting heated and its outcome more and more uncertain, it became clear that the defeat of the human proposal would cause the end of the whole project. The Martians worked out a new strategy, and on July 4th 2293, in a historical session, parliament accepted the plan of modification of the ecosystem.

A protocol of implementation was also prepared, that gained the approval of the moderate ecologists. The humans succeeded, but only apparently: the protocol required an infinity of studies and checks that would delay the modification of the ecosystem for many years.

Moreover, the virtual beings were going to take advantage of the distance from the homeland, to postpone the project further. Actually, they knew they could avoid its realization forever. In about a hundred years, the population of the solar system would increase thanks to Net people and the political balances would turn in their favor.

To silence the remaining opponents, the virtual beings put into the field the major industrial groups and banks of the solar system, that had been financing the project for years and that in default of government grants, would be destabilized by an impressive liquidity crisis, capable of triggering a series of disastrous failures. Under the pressure of powerful lobbies, an influential joint party favorable to colonization started playing a leading role.

The Alpha Centauri project was finally approved by general consent. The humans drew a sigh of relief for having avoided even worse troubles.

0101 010101001 "The new species" (2298).

GENERAL HEADQUARTERS

Defense General Headquarters, Earth.

The gynoid's body lies on the couch.

When Eve recovers consciousness, General Marcus Rand is next to her. "As soon as I was told about your arrival, I rushed here."

The woman feels numb. She slowly gets into a sitting position on the couch. "Marcus, I need to embark on the Caravels."

"What for?"

Eve explains the situation.

"Only the Staff can take this decision. I will fix a meeting."

The man steps aside and starts speaking to his superiors.

He rejoins the woman. "We are meeting in half an hour."

"I knew I could count on you."

"We have to hurry up."

Eve jumps to her feet. They enter a corridor and then an elevator.

"We are descending to a depth of two kilometers."

They fasten their seat belts. A small object rises from the floor and begins hovering. They are in free fall. The elevator starts decelerating; electromagnetic brakes are working.

The door opens in front of the imposing entrance of a nuclear bunker. Eve has always dreamt of entering this place, where the Staff takes vital decisions for the safety of the Confederation and develops strategies towards a distant future. When she served in the army, it was the most coveted goal, for her as well as for many other young officers eager to excel. Most of all, it was an unshakeable point of reference. And now she has the honor of entering it as a civilian, in the same way as heads of state.

They walk along a corridor. She senses the prying eyes of the cameras.

At the end, a robot is guarding a door. They enter the hall. Behind a majestic table, five staff officers are waiting for them.

Eve stops a few meters away, and even though she has not belonged to the army for many years, she springs to attention. Marcus remains a few steps back.

From the center, the elderly officer gazes at her. He is white-haired and has a dark blue uniform with medals.

"General Marcus Rand informed us about your proposal," begins the Chief of Staff. "You

The Alpha Centauri Project (Thinking worlds)

deserve the greatest attention, because of your brilliant past in the army and the help you have recently provided us.”

He looks through a dossier. “You distinguished yourself in the Red Helmets by foiling a terrorist attack which used nuclear weapons. You were decorated for bravery and awarded several citations. You were destined to reach the peak of a military career. Instead you resigned.”

The Chief of Staff pauses. “You are probably wondering why in all these years, we never stopped being interested in you.”

Eve has an impassive gaze - just a blink. Meanwhile the officer continues: “After the military academy, you accepted to undergo a treatment able to improve your mental and physical characteristics. A very secret experiment, that Defense was trying for the first time on a human being. Your memory of the cure was erased, in order not to influence your behavior.

When you resigned from the Defense, we had a moment of hesitation. Finally, we set you free; surely your behavior in other fields would be very interesting as well. This regularly happened. You worked in AISI, distinguishing yourself by the quality of your research.”

His face darkens. “While belonging to the Certification Committee, you were charged with corruption. The scandal was a surprise to us. We didn’t want your life to have anything hidden from us, so we put General Marcus Rand in charge of an enquiry. It was all a plot.

With the brain digitization, you became a virtual being with unique characteristics. You got in touch with the Elects, an organization we appreciated for its participants’ merits. You started transferring your characteristics to its members. Thanks to you, the Elects succeeded in escaping Security, but most of all they began transforming into a new race.”

He gives her a piercing look. “Let’s get to the point. You want to recover the population and stop Nihil. How can you manage it?”

“Once Nihil showed me a new virus. He wanted me to study it, but when I asked how he had got it, I didn’t receive any answer. A few days later, he wanted me to erase it from my computer. However I had enough time to study it.”

“How are you going to develop a treatment?”

“I need the Defense’s simulator.”

The legendary supercomputer which is more powerful than all the other machines in the solar system put together. Placed under kilometers of rocks. One of the most closely guarded military secrets.

The high-rank officer puts on a solemn expression. “Our computer is engaged with important projects and to meet your proposal, we would have to delay the activities in progress. Nevertheless we are willing to listen to your reasons.”

“As you know,” begins Eve, “the virus is lethal. We cannot restore the population, because the backups have been erased. We must develop a treatment, but if we fail, no one will survive.

I applied to you for three reasons.

First of all the Defense supercomputer is the only one that can perform such complex

The Alpha Centauri Project (Thinking worlds)

computations in a few days. The other machines would require months.

Secondly, this computer uses unique simulation programs.”

“How do you know what software we have at our disposal?” asks the Chief of Staff.

“I was the one who developed them. The Defense entrusted AISI with this project.”

The officers talk in low voices.

“You mean...” intervenes the top officer, “that you not only have a deep knowledge of the infection, but also of the tools necessary for a cure. In conclusion, you can judge the need for the simulator better than anybody else.”

“So far I have explained two reasons. The third one is that I have already worked with the scientists of the Defense. They are the best team I have ever met. With their help, I am sure I will succeed.”

“The Chief of Staff reads an hologram: “In exchange for your help, you ask to continue the voyage to Alpha Centauri with the Elects. Explain to us the reason.”

“The Alpha Centauri Project marks the beginning of a new era. We want to contribute. You know what I mean.”

The Chief of Staff ends the meeting: “Thank you, captain.”

The sitting is adjourned.

When it is resumed half an hour later, the most senior officer stares at the young woman who is standing at attention. A proud bearing and resolute expression, like the best officers.

“Captain Dirac, you are an excellent soldier, you know Nihil better than anybody else, so much that you worked with him on some secret projects. We are sure your contribution on the Caravels will be decisive.”

He gives a deep sigh. “The Alpha Centauri Project will take the digital people to another solar system. But there is a second and even more ambitious objective, that we have kept secret till now. We believe that, far from human influence, the digital beings will be able to express their potential at best. We are looking for people that can help us to reach this objective.

Therefore the President of the Confederation, having consulted the Net representatives, has decided to accept your proposal. Our simulator is at your disposal, Captain.”

He points to the officer behind Eve. “From now on you can address your requests directly to General Marcus Rand. The Alpha Centauri project has top priority.”

Eve and the young officer take their leave. They reach the elevator.

“You made a hit with him!” jokes the man.

“Thank you for your help, Marcus. You had me put on board and in charge of so important tasks...”

“You know this work better than anybody else.”

On the tips of her toes, Eve kisses him on a cheek.

Now they are on the terrace. They stride towards a streamlined aircraft parked in the middle.

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The man hands over a suit. “We will be at the simulator in half an hour.”

They climb the ladder and slip into the cockpit. The engines are hissing. An instant later the aircraft rockets into the sky.

A LEAP INTO THE PAST

General Marcus Rand stops a dozen meters from the entrance. “I cannot go any further.”

Eve looks at him calmly. “If a solution exists, I will find it. In a few days it will all be over.”

“I will be here.”

The woman sets out along the corridor. After fifty meters, she enters a circular room. At the center, is a black column about her height and twenty centimeters thick.

“Here I am.”

“I was waiting for you.”

When she closes her eyes, her programs are sucked into the computer.

She protects her eyes with a hand. Now she is in a space without walls, filled with an intense brightness. Ten individuals in spotless uniforms are standing around her: the Defense scientists.

“Welcome back, Eve!” greets her the highest ranking officer. “Many changes have occurred since you left.”

Her memories flood back.

Everything started about thirty years before on a clear spring morning, when the AISI director called for Eve.

“You have to go urgently to a military base to join a secret project. You will maintain your job with the Certification Committee, but you have to discontinue any other activity.”

“What else?” asked Eve impassively.

“A military ovoid will pick you up in two hours.”

She handed over all her projects. Towards midday, she embarked on the aircraft. A dark restricted space; small portholes along the fuselage. The aircraft headed for the desert to the south of the town, an expanse of black lava stones interrupted every now and then by majestic monoliths. A place she knew well, because she had climbed a few of those peaks. Nevertheless, she was unaware of the existence of the military base.

An hour later, the ovoid landed in the middle of the desert. A dried up square bounded by a ten-meter-high wall, topped with barbed wire, with a huge block of reinforced concrete in the middle. Burning air. Cameras and sensors all around.

Three sparkling robots were waiting for her.

“Doctor Dirac. Follow us, please.”

The Alpha Centauri Project (Thinking worlds)

They escorted her into the building. A garage with a row of electric vehicles lined up along a wall, and the entry to a tunnel on the opposite side. They got into the first trolley that, through a succession of hairpin bends, ran more and more steeply down the tunnel, to the entrance to the main laboratory.

After walking for a hundred meters, they reached a room, where about ten scientists were sitting round a table. A few stood up.

“How was the flight?” asked a fair-haired young man, shaking her hand.

“The automatic pilot was not talkative. I enjoyed the view of the desert. I had never been so far.”

“We have been struck by two of your articles,” stated a senior officer in a corner, with arms folded. “We will put your theories to a hard test.”

A young woman with skin like polished ebony, offered Eve a hot coffee. “My name is Paula. I have been here for two days.”

The rest of the afternoon passed discussing a particular behavior of matter they had recently discovered. They decided to perform a simulation. Eve was put in charge of the development of the software.

Fantastic but difficult months followed, during which they produced the raw material for a new extraordinary quantum computer [\(18\)](#).

Defense decided to build a prototype. Scientists and technicians started arriving in dozens every day. With the delivery of materials and equipment, the preparation of the laboratories began. The base became a single gigantic yard absorbed in a restless activity.

Two months later, in perfect agreement with the plans, the staff counted five hundred units and the laboratories were the most advanced in the solar system. In the following year, they passed from the research to the design, from the testing of the components to the assembly, thanks to a streamlined organization and a good deal of favorable circumstances.

At last the object of their desires was towering at the center of the vaulted hall of the main laboratory, surrounded by lots of scientists and technicians in white uniform, ready for the final tests. A web of equipment and cables wound all over the floor. Excitement was palpable. The triumph near.

That day, when the Military Police stepped in, Eve was testing a piece of equipment. They approached her, and in a deathly silence, escorted her up to a room where three officers were waiting for her.

“Doctor Dirac, you are being investigated for corruption.”

They were staring at her, ready to notice the least reaction.

Finally the response: “We’ll hand you over to the civil authorities.”

An hour later Eve was on an ovoid, squashed on the rear seat between the powerful shoulders of plainclothes detectives. Bewildered. At the mercy of events she had not caused, and that were upsetting her life.

The Alpha Centauri Project (Thinking worlds)

At the center of the room, Eve bends her head. "The beginning of a nightmare."

Immersed in dazzling whiteness, she remains motionless, till the officer brings her back to the present: "We can start."

She raises her head. "I am transmitting the data."

[\(18\)](#) *Qubit strings of unprecedented size.*

COMPUTER SCIENCE INSTITUTE

@ Virtual town of Alphacity.

The engines whistle. The aircraft is darting among the skyscrapers and over the palaces. Eve looks at the town through the transparent cockpit. The streets and the squares are covered with mass of bodies.

"My challenge."

After half an hour they reach the white building of the Computer Science Institute, in the middle of a lawn. The ovoid lands near a fountain, in front of the main entrance. Eve gets out. A few researchers, led by a small sprightly man, run towards her. They shake hands.

"Eve, what a pleasure to see you again!" says the director.

She smiles, only for a moment. "I know you are in big trouble."

"The deaths are increasing. It is a side effect of the infection."

The group walks into the building and up to an elevator.

"We are going down to the bunker. We were there when the epidemic broke out."

They enter the laboratory.

Eve and the director step onto the platform. About fifty scientists are gathered in front. Strained faces stare at the director and Eve, a profound determination is expressed in their looks. This is the kind of people which loves intellectual challenges and lives them passionately, exactly as she does.

The director begins: "You know Eve Dirac, at least by reputation. She is joining us as a research manager."

Some are astonished, others have confirmation of the rumors, but everyone is glad to receive help in such a difficult moment. They welcome her with warm applause. Like it was before.

She stands up. "I am pleased to be here. It looks like AISI. I recognize some of you and I remember our achievements. This time we are facing a challenge of an unprecedented difficulty. A challenge we must win at all costs. The existence of the whole population is at stake. But let's come to the point. In the days spent at the simulator, we found out a cure for the damage caused by the virus."

Their faces light up.

"Do you mean we can bring the victims back to life?"

She tightens her lips. "I don't want to create false hopes. Till now we have performed only simulations. Now we are testing the treatment on a corpse."

The Alpha Centauri Project (Thinking worlds)

The looks concentrate on a crystal cylinder on the right of the platform. A wan emaciated corpse is inside.

The data flow on a screen.

“The treatment file has been installed,” states Eve. “Let’s start.”

A menu appears in mid-air.

An invisible hand activates the functions. The cylinder fills with a light mist. After a few minutes this condenses into a film.

In the background is the buzzing of the equipment. On the screens frenzied sequence of numbers and graphs.

A minute passes.

Five minutes.

Ten minutes.

The corpse is still immobile.

Then a beep, a single, weak beep. Everybody turns.

On a distant screen, amidst the other equipment, a green dot shines.

The scientists rush to the terminals. Excited phrases.

The dot in the screen makes a leap. Then another.

In unison, all the other equipment lights up. The alarms sound.

The glances concentrate on the ashen body. He is as pale as death. For him time has really stopped running.

But the screens show something happened.

A quiver of the right hand. He moves a finger, raises his hand.

Slowly, he opens his eyes. Pupils veiled from a long sleep.

A few seconds, as long as eternity, instantaneously engraved in the memory of those present, the crowning achievement of their efforts.

A Hooray! as deafening as thunder bursts out.

A week later.

The scientists are gathered in front of the director and Eve. An electric atmosphere, they wait for the announcement. Only suppositions and many rumors.

The director stands up. First, he looks at the audience, then starts in a measured voice: “A week has passed from the contagion. Now the treatment is ready to be used on a large scale. Unfortunately the last tests had a negative outcome. We can cure only part of the population.”

A shiver runs through the group.

Eve speaks: “I thank all of you for your dedication and team spirit.”

She pauses and stares at the confused expressions of people whom only the enormous

The Alpha Centauri Project (Thinking worlds)

tension and the motivation to succeed is keeping alive. “As said by the Director, the outcome is uncertain.”

A scientist stands up. “Can you quantify the result?”

“The success rate is between fifty and eighty per cent.” Eve’s clear voice echoes in the silence: “Whatever happens, we must be proud of our work: we have done everything possible.” She feels their eyes on her. “In a few hours, millions of people will be brought back to life.”

Those in the hall feel a surreal calm.

Eve turns her eyes towards the screen above the platform. A low altitude shot of Alphacity appears. Streets and buildings scattered with an expanse of yellow dots, among which show up vivid red lights: the infected and the victims.

“The deaths have reached the ten percent of the population,” announces Eve. “Now I am freeing the repair programs.”

A circular wave spreads from a corner. Like a foaming torrent, it flies along the streets, insinuates itself into the buildings, invades the basements, progressively coloring the town with green. But here and there yellow and red specks flash tenaciously.

Eve raises her arm towards a number on the right of the map, fluctuating unceasingly. “That’s the success rate.” She directs her attention to a series of graphs. “In half an hour, we will have the first estimate.”

The countdown.

Time passes not in seconds and minutes, but in numbers and percentages.

Bodies frozen by tension, exclamations turned to whispers.

A slow agony, towards an inexorable result.

At the first estimate just a murmur.

Data are updated, hour after hour.

Towards evening, the verdict arrives and is received in total silence.

ALL TOGETHER

@

Long silent processions, shining with the lights the inhabitants hold in their hands, moving towards a single destination, the main square of the town, where the ceremonies are taking place. The participants' pallor and sadness reveal a deep pain – many have a loss in the family – but their dignified behavior shows they have accepted their fate.

They stop in front of a platform at one side of the square.

At nine o' clock, the Admiral starts the ceremony: "We are here to bid the last farewell to our parents, sisters, brothers, relatives and friends that a cruel fate has robbed of life. For all of them, I am asking for a minute of silence."

The people of the Caravels bend their heads and remain concentrated on their sufferings that even the Alpha Centauri anthem, sweet ancient music dealing with courage and solidarity, cannot soothe.

"A month ago," the Admiral continues in a carrying voice, "we were celebrating the beginning of our voyage and the birth of the Alpha Centauri Republic. The moment we waited for so long, the crowning of years of hard work. However, the evil ravaged our minds and killed the most unlucky of us.

Now we are here again, to grieve for our dead and dedicate our lives to the objective we have chosen to follow by embarking on the Caravels."

The Admiral turns towards Eve. "To this woman, I say thank you for having brought us back to life and having given us the opportunity of restarting our mission."

After an emotional silence, the audience bursts into a flood of applause. Eve goes to the platform. Millions stand in front of her, waiting for her words. The people she is fighting for, to whom she will dedicate her future.

Her clear voice echoes in the square: "I decided to take part in the voyage to Alpha Centauri because we can give dignity to the virtual people only by migrating to a new world." She stares at the living sea; she senses their emotions. "Your presence this evening is for me your biggest gift: in this moment I can feel the force of our solidarity and the firmness of our motivations. It is an extraordinary experience, that makes me understand how the people of the Caravels are able to turn into reality even their most daring dreams."

When Eve leaves the platform, her friends and colleagues run up to her. Victoria and Adam hug the woman. The commander of the Special Forces first congratulates, then draws her aside. "We completed the inspection of the underground world, but we couldn't find Nihil. He must be on the surface."

"Have you picked up his trail?"

The Alpha Centauri Project (Thinking worlds)

“Not yet, but the search has narrowed to the 13th district.”

“A matter of days, then.”

They rejoin the group and turn towards the platform, where meanwhile C573Y has begun speaking: “We cannot lower our guard yet.”

He raises his arm towards the hologram of a dozen individuals displayed in the night sky. “Here are our enemies, all of them free. The first one on the left is their leader, Nihil, the one responsible for all our disasters.”

He shakes his arm. “While they remain free, we will never be safe!”

CLOSE TO THE SKY

@

Midnight. Eve wakes up abruptly. A top priority message has appeared in her visual field:

*** CONTACT WITH ARMED GROUP ***

She sits up in bed, keeps still just enough time to recover her strength, then jumps to her feet and puts on her armor. A few moments later she is striding along a corridor, towards a glass door. Just beyond, an ovoid, with the engine running, stands out against the black sky.

“13th district,” she orders jumping into the cockpit. While the noise of the engines rends the air, the vehicle starts a dizzy ascent. Through the transparent covering, Eve glances at the Security Headquarters. It is filling with light and, in the vast central yard, the robots are going to and fro. They rush to the gates and spread through the town. Behind her, in the distance, the aircraft loaded with troops.

The ovoid skims over the buildings. The whole town is an immense succession of checkpoints and patrols. There is no sign of civilians who are hidden in their houses as requested by Security.

Eve connects to the main computer: “What’s happened?”

“The flying cameras have captured faces which the recognition program has identified as belonging to the terrorists.”

“Is Nihil among them?”

“His face doesn’t appear in any recording, but it is possible he is one of the individuals filmed from behind: some of them have the same build.”

“Show me the area.”

A low altitude shot materializes. The troops are converging on a residential area.

“Connect me to the officer.”

A hologram appears.

“How are things going, captain?” she starts.

“We have completed the siege. One of our patrols has engaged the enemy in a gunfight, forcing him to retire into a building at the end of the street.” He raises his arm towards a block of flats a few hundred meters away.

“Activate the killers,” orders Eve.

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A black swarm, made up of tiny machines able to slip into the narrowest openings, takes off and heads threateningly for the building. After it has disappeared inside, Eve continues following the events on her visual field. The contact is almost immediate; a close chase along the corridors, up to an apartment. The terror stamped on the faces, frenzied shrieks. After a series of explosions, a dead silence falls.

The ovoid lands in front of the building. The robots have already recovered the victims – few youths with emaciated faces – and are loading them onto an armored container, ready to leave for the headquarters.

The captain runs up to Eve.

“Did you find Nihil?” she asks.

The other shakes his head. “He wasn’t in the group.”

Eve gets in touch with her assistant: “At what point is the preparation of the search agents?”

“They will be ready tomorrow morning.”

“I want them to be spread as soon as possible.”

The hours pass slowly. The sky changes from black to deep blue, while the stars disappear and the horizon is tinged with pink. All of a sudden the first rays of sunlight filter between skyscrapers and rapidly descend towards the street, lighting up troops and vehicles. These are dark shapes against the blazing background.

“We are ready.”

“Let’s start,” orders Eve.

A flight of ovoids appears. They are spreading a luminescent cloud, which slips into the skyscrapers, the houses and the basements. Millions of microscopic programs that exchange information, behaving as a single being as big as the town, in constant touch with the headquarters, even able to recognize the enemies’ traces, to chase and kill them. The same programs which Eve began to prepare before her departure.

They start converging towards the terrace of a skyscraper.

“There he is!”

Eve beckons to a dozen soldiers to follow her and all together they run towards an ovoid. The ovoid starts the takeoff.

Now the flying cameras are transmitting the first images from the skyscraper. There is their enemy, surrounded by whirls of light that he tries to keep away by shaking his cloak.

The ovoid approaches the skyscraper, a monument as dazzling as the sun. It performs a sharp turn, and then stops about ten meters above the terrace. Nihil, wrapped in the light, is running up and down with outstretched arms, like a blind man.

She addresses the pilot: “Let’s get down.”

FINAL FIGHT

@

Nihil is leaning his back against a low wall, at the center of a pool of light, drenched with a luminescent fluid. His stillness and lowered eyes make him seem to be unconscious.

But at a sudden noise of steps, he raises his head. In front of him stand Eve and her troops.

“I was waiting for you. I understood you were on the Caravels when your programs attacked me,” he whispers. His face lightens with a scoffing smile. “You will not win.”

“Kill him!” shouts Eve.

In an instant, the programs with which he is soaked, pierce his body like needles, covering every cell with a thin film. Nihil remains as motionless as a glass statue. A fresh breeze is sweeping the terrace.

“Nothing must be left.”

A thick smoke bursts out of his body.

When it vanishes, Nihil has disappeared. His cells have been dissolved into the single components, and the wind has dispersed them.

Other ovoids are hovering around the skyscraper. One of them lands on the terrace and a squad disembarks.

“I must go,” says Eve to the captain. But halfway to it, she shivers, her sight grows dim, she staggers. Just before falling to the ground, she recovers her strength. Still dazed, the woman reaches the aircraft and collapses into her seat. “To the headquarters!”

During take-off, she calls C573Y: “I got rid of him.”

“Congratulations!”

“He carried out his revenge.”

“How can you be so sure?”

“He never limited himself to threats.”

“Our search programs have not pointed out any anomaly, even after being updated.”

“It’s a brand new virus! Move the population out to another server.”

After a few seconds, C573Y starts: “An unknown program makes the transfer impossible.”

Eve half-closes her eyes, “We are trapped.”

The ovoid begins the descent towards the Security Headquarters. On the roof, a small crowd is waiting for her, ready for the celebrations. Among them, is Victoria waving her arm and Adam.

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Eve gets in touch: “You all, take shelter in the bunker!”

“What’s happening?”

“No time for explanations. Carry out the order!”

The group sways, then dashes towards the entrance.

Eve follows them, clenching her teeth. Matter of minutes.

Her throat starts burning. Beads of sweat are dripping from her forehead. When she wipes them away, her fingers get covered with a sticky substance. Her features are melting!

A shooting pain, as if her nerves were scorching; a series of convulsions, attacks so intense and prolonged that her muscles get torn and her organs reduced to a bleeding pulp. Bent in an unnatural position, Eve feels her life slipping away. Just when she has victory within her grasp, their dream dies...

When the ovoid lands on the terrace, the woman’s body is unrecognizable. Scattered around, the remains of her companions are slowly dissolving.

In the meantime the news of the victory spreads throughout the town. In a state of collective euphoria, the inhabitants mill around in the streets. They hug and kiss. Now the sufferings are only memories.

But the disease runs through the streets, crosses the squares and breaks into the houses, taking their occupants by surprise.

The following morning, while the moon vanishes and the sky lightens with blue, the sun caresses the skyscrapers, the palaces and the parks once again. Wing beats. A finch flies from a garden, whirls around an obelisk and alights on a roof. The air fills with birdsong.

But the town doesn’t wake up. A gust of chilly wind strips a cloud of dry leaves from a row of plane trees and makes them whirl around.

The bridge is in deep silence. A few androids are staring at the screens, concentrated on the images of the town. Their strained faces make them look one hundred years older.

C573Y moves away from the group. His rhythmic steps break the silence. He stops in front the panoramic window where he remains motionless gazing at the most sparkling star, Alpha Centauri. Apparently the android is absorbed in thought; broken-hearted.

BEYOND DEATH

Men burn with the desire for eternity. Some prophets nourish the hope which promises afterworlds of bliss or horrors. Others guarantee rebirth as a new being. But many believe all this is an illusion.

We Net beings yearn for eternal life too. Our existence is certainly much longer, but like men, we cannot escape death. So, what should we expect?

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SHADES

“To the lake!”

The ovoid descends into the multitude of vehicles crowding the aerial freeways in the evening hours. It passes between two rows of skyscrapers dotted with lights, flies over the outskirts and skims over the treetops of a luminescent wood. Half an hour later it lands on a rock towering in the middle of a plain. The place where they are used to meeting almost every week, after work.

Victoria and Adam get out the cockpit and walk for a hundred meters through a meadow and up to the brink of a precipice. They sit down on a boulder. Victoria bends forward and pulls up a blue blade of grass as smooth as silk. She fiddles with it nervously.

In spite of the night hour, it is not dark. The big star on the horizon tinges the plain with orange and lights the rippling surface of the lake with golden reflections. The sparkling dot of an ovoid appears in the distance.

“She has arrived.”

The vehicle lands by the first one. A dark figure gets out, looks around, then gives a wave and approaches with long strides.

“Sorry I am late,” murmurs Eve while sitting in front.” The Admiral called me. He told such an incredible story...”

The others become curious.

“When Nihil realized his defeat was unavoidable, he avenged himself by spreading deadly viruses. All the population died.”

Victoria starts. “Are you joking?”

“Why are we alive?” presses Adam.

“We are all copies.”

“But they were erased just after departure...”

“A Defense program succeeded in duplicating the inhabitants and stored their copies in a military server just before the slaughter. It happened when I was fainting.”

Victoria and Adam start a discussion, Eve answers their questions. Gradually the atmosphere calms down. They gaze at the star low on the horizon.

“It’s much brighter than the moon,” murmurs Victoria.

Alpha Centauri is a triple system. For half of the year the smaller star brightens the night, but for the other half the biggest one and a third deep red body come alongside, to light up the day.

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They listen to shrill and prolonged cries. Tiny creatures take off from a shrub and go to hide in long grass.

“The Admiral will inaugurate the fifth town in a month,” announces Adam. “We are in advance against the timetable.”

Victoria smiles, she has never felt so useful, never met before such optimist people.

They turn towards the cable of the space elevator that joins the planet to the Santa Maria orbiting thirty thousand kilometers above. A platform loaded with big containers is rising slowly.

“Still six months!” says Eve.

Adams looks for the three sparkling dots of the Caravels. “I can’t wait to leave.”

Victoria gazes in silence at her companions. This is the right moment. “I wonder whether we should give up instead...”

Eve remains petrified for a few seconds. “What? Do you have doubts right now, only a few months from our departure?”

“Why should we abandon this planet, after all our efforts?” insists Victoria while tearing up the blade of grass abruptly.

Eve grumbles: “Don’t you see? The automatic factories and the robots are assembling the towns one after the other. Here they don’t need us anymore!”

“Man has lived on the Earth for thousands of years.”

“And then?” exclaims Eve. “We have a mission!”

Adam intervenes: “Our infinitely long life imposes on us a high price, Victoria. We must face challenges man will never see.” He stares into space, as if they are in front of him. “Collisions with asteroids, exploding stars, clashing galaxies. Perhaps we will be present at the end of the Universe!

We must get ready. Certainly we cannot succeed by remaining confined to this tiny planet of the Milky Way. We are too few to acquire the knowledge we need and too far from where the threats will spread from, to rush in time.”

Now Adam speaks with a solemn voice: “Spreading into the universe, we are going to meet other civilizations. And some billion years from now, we are facing all together our greatest challenge.” He gazes at the sky dotted with winking lights. “We want to survive the end of the universe!”

Victoria listens in silence, her eyes focused on her two companions. Her hands tremble a little.

“This is our task,” explains Eve, with such a sweet voice that she seems to sing. “Man gave us a lot of time ago, when he taught us to look into the future and made us understand that the real joy is building it all together. But you have understood this for a long time. When you speak about the projects you are carrying out, your eyes shine. So, why do you want to give it up?”

She stares fixedly at the girl, leaving no escape.

Victoria pants.

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The same feeling as before.

Uneasiness rises from the bowels and spreads to the whole of her body. Six months before, when the same pain appeared for the first time, she thought it was momentary. She pushed it back with willpower. But it remained in a black corner of her mind, and increased day after day; fears she had forgot the existence began to surface. For the first time, she is assailed by doubts.

“I don’t know what is waiting for us...”

Now Eve is straight in front of her, gazing deeply into her eyes. “You are afraid.” She sits by her side. “This is a heritage of the humans, once again; essential for them, as they have a life which is too fragile and short for such ambitious projects. An unacceptable weight for us. Don’t you realize? We have started a scientific revolution, technology skyrockets towards goals unconceivable till few years ago, the Alpha Centauri colonization is a sensational success. And now we are here speaking about eternity...”

Victoria perceives their warmth. With Eve there is never any friction, only immediate understanding. And Adams knows her so profoundly, that she has the feeling he can read her thoughts. So much that even when she is alone, she feels him near.

Her family, in whom she has an absolute trust.

Words as sweet as caresses reach her. It’s Adam speaking to her mind: “We will be standing by you, whatever happens, Victoria. But remember, follow your new nature. Most of all, accept every experience, although it can seem difficult to you, and always look for new ones. Only in this way will you have the opportunity of knowing yourself as never before and making enormous progress all in one go. And one day, nothing will frighten you.”

FOR EVER

The big star inflames the clouds on the horizon and covers the plain with red. Circling dark shapes are approaching. A few hundred meters away, majestic hook-beaked birds with yellow and red scales turn towards a rock and perch with a beat of their wings. Slowly the celestial body disappears leaving a pink glimmer, while on the opposite side the dawn peeps out. The smallest star rises, lighting up trees and bushes again.

Two robots are sitting on the grass. They listen to the melodies of nature: the clinking from the glassy leaves of the bushes shaken by the wind and the excited singing of a flock hidden among the red filaments of a meadow. In the sky, half way between day and night, in a timeless twilight, three dots shine brightly.

James arrived via a laser beam two weeks ago, after his death by an accident. “I didn't anticipate my arrival, because I wanted to give you a surprise”.

“I have been dreaming this moment for over a century.”

Now James speaks in an excited voice: “I met the Admiral. He wants to speed up the colonization; he intends the governors to assist him.” He hesitates for a moment. “He offered me a job.”

Victoria gives a start. “What did you tell him?”

“His proposal sounds interesting.”

A shiver runs down her spine, it's a fact that tests never end. She plucks up her courage and her words come out mechanically, if a little sadly: “Soon the Caravels will leave. I am participating in the mission. I took this decision a long time ago.”

Victoria curls herself up waiting for a replay, embracing her knees. Like a helpless child.

Meanwhile James speaks casually: “I don't want to force you to stay.”

Words as violent as slaps: it's fate they part, forever. Just when happiness is at hand.

“But I don't intend to lose you either,” adds James.

Victoria's eyes light up. She turns abruptly, gives him a questioning look. “What do you mean?”

Then a sudden intuition, it is too good to be true.

James draws her to him. “I am leaving too. I took this decision long ago too, when I saw you were among the participants. I want to live this adventure with you.”

Shortly later Eve and Adam join the couple. The four talk about the preparations and when they are sure nothing has been left out, enjoy the view. Now the faint light of the star is

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covering the meadow with a transparent veil, while the breeze makes the sharp treetops sway.

A dark form trots along searching for a shelter. “Look!” shouts Victoria.

Adam points at a rock where the creatures with long thin limbs are perched.

“Why do they keep still?” asks James.

“They are enjoying the warmth of the star.”

Victoria stares at the sky. A clear summer night, with thousands of lights twinkling in the heat. In the background, a diffused fog: millions of stars and planets. An immensity where she will soon be immersed with her family. A mission that will keep them busy for ever. Maybe until the Universe exists...

In a low voice she begins to sing the dreamy and passionate hymn of Alpha Centauri. The others join in more loudly:

*“Joy, beautiful divine spark,
Elysium’s offspring,
We come inflamed with passion,
Heavenly creature, to your temple!
Your charm reconciles
Who custom rigorously divided;
All become brothers,
Where your gentle wing rests.*

...

*Hug in millions!
Reach this kiss all Universe!” [\(19\)](#)*

A melody that insinuates into the glassy woods, making them echo like crystals. Ancient music locked in the memories of the planet and the people who originated them. A sweet nostalgic song that will follow them into the most secluded corners of the galaxy.

[\(19\)](#) *Friedrich von Schiller’s poem, musical adaptation by Ludwig van Beethoven, 1824, “Ode to Joy” (see bibliography).*

A HUNDRED YEARS LATER

The day is coming to the end. Rocky columns, towering in the parched plain, cast long narrow shadows on the stones, while, pushed by the evening breeze, reddish shrubs are rolling all around. One of them stops at James' feet.

He picks it up with one of his stretchable arms and tears off a branch bristling with long thorns. A bright red lymph spurts out.

He sets out for a shrub a few hundred meters away where there are huge pink flowers. He has heard about them from some of his colleagues, but he never ran into a single specimen before.

James claps his hands, but nothing happens. He tries again more sharply. A rustle then small animals take off from the flower trumpets and scatter in all directions flapping their membranous wings.

He whistles a cheerful song that the plants repeat exactly. He changes to another tune, and he is followed by the flowers. They go on exchanging melodies, till he hears a hiss: "Here you are!"

Victoria gets by his side. "These plants can learn whole sentences, outstripping even the cleverest birds on Earth."

She points at a pistil which extends from a flower. "An eye, now it's watching us!"

The air fills with piercing cries. "It is talking to its companions. From the tone, I would say it dislikes us..."

She has just completed the sentence when the flowers close up into spherical shapes and go away pushed by a gust.

"Fantastic!"

"Nothing in comparison with what can be seen in spring, when millions of flowers roll along the valleys, pushed by the seasonal winds. They can cover hundreds of kilometers a day. It is the aridity of the planet which forces them to make these migrations."

"We must rush to the base!"

The two start hovering and after having drawn in their eight long legs, disappear in a few seconds behind the clouds on the horizon.

BIG BANG

Far in the future.

The Universe stared at the galaxies deformed by the gravitational force.

"And now, my son, you are about to be born."

He drew a deep sigh. Streams of neutrinos ran along the space-time folds, joining the multitude of thinking planets of his mind. In a moment, he settled the cosmological constant.

"You contain a sublime seed, but a long time will pass before you reach self-awareness. At the beginning, lights as bright as never before will burst out from your viscera. It will be the chaos. Your growth will be tumultuous."

The icy cosmic wind inebriated him, and a quiver ran through the billions of light years of his being.

"Then, from a remote corner, the first glimmer of awareness will emerge. It will be only a small light. You will not be able to perceive it; your way towards consciousness is longer, much longer.

Multitudes of civilizations will light up in succession, several of them in unison. They will remain mostly local phenomena, destined to pass away with the same swiftness with which they will have come to life, but others will spread forcefully throughout your being, reaching the most remote zones of space. They will be your nerves; their machines and planets, your neurons.

You will acquire self-awareness, or better, many consciousnesses. They will be incomplete and limited to regions of space, definitely imperfect. Be patient. Your way is long, but evolution will follow you along the whole of it.

One day the civilizations surviving my slow agony, will migrate into you. Thanks to your light and energy, they will thrive again.

They will meet your populations and will teach them to progress. And when our natures finally merge, you will become a single being, at last. Before, much before it happened to me. "

He glanced across at the planets throbbing with life, at the red and yellow stars, at the super heavy bodies, so black that even light cannot escape them, at the antimatter galaxies.

"You will not be destined to isolation. Beyond your borders, immersed in a space where time doesn't exist, there are beings like yourself, destined to meet you, eager to join you. This is the mystery of life."

The space started to heat up.

"Now!" concluded the Universe. From vacuum, a blinding fire burst out.

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I will be pleased to receive your comments. They will contribute in the evolution of this work. Do not hesitate to diffuse the novel among your friends and acquaintances, also on the Net.

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About the Author:



Marco Santini graduated in Engineering and specialized in Business Administration. His work experience ranges from research to general management in multinationals and state companies. Deeply interested in high-tech trends, he has written “The Alpha Centauri Project”, a novel depicting a near future dramatically changed by emerging technologies. He has made the ebook downloadable in English, French and Italian, in order to share its content with the widest audience and to contribute to discussion about great themes.

This book is dedicated to my Mother