

AS TIME TENDS TO INFINITY

Earth

The year? Twenty Thousand (New Time)

Subject? Anniversary Meeting

On Venus, the last signs of human habitation are cracking under the intense pressure of the atmosphere, the organized atoms hopping out of their lattices as they absorb the energy of the high temperature, to return to the amorphous rocks of the original state.

On Mars, the people who colonized the planet of the ancient God of War are long extinct, and red dust is burying their battlements, proving the folly of trying to fight hostile nature.

On Earth, however, things go on, albeit in a new fashion. For example, there is now only one city, called Diaspar. It is named after an old chronicler, who foresaw that one day mankind would tire of conquest, and retreat within high walls – the product of amazing technology, but directed by passive psychology.

Zabon, one of Diaspar's oldest but fittest inhabitants, stood atop the city's encircling wall. He had climbed there, but panted only slightly as he looked downwards and backwards to the centre Oval. There, a multitude of pinpricks marked where the majority of the population was gathering. Between Zabon and the crowded Oval was a high building – the Khedron Cube – which was topped by a lush garden. Standing on the edge of the Cube, half-obscured by foliage, was the girl Alvina. She was the youngest of Diaspar's 4,321 inhabitants.

While the distance between Zabon and Alvina was large physically, thoughts flashed between them almost instantaneously.

“I do not accept the need for a meeting.” This from Zabon.

“I agree,” replied Alvina. “And anyway, they would not listen to me.”

Zabon, smiling slightly, turned away, losing his gaze in the jungle which pressed tightly against the city's walls. The Council which had approved the birth of Alvina would now have to tolerate her, rebelliousness and all. In the same way that they had tolerated the older man; who however had come into existence with a biologically well-machined middle age.

Suddenly, Zabon let his smile grow into a grin. The gathering crowd in the Oval was unlikely to generate new ideas from its meeting to mark the twenty-thousand (old year) Anniversary. Let them talk. He preferred to look at the magnificent forests which marched down the mountain to embrace Diaspar. The old man laughed – the sound spreading into the void without an echo.

At this time, the Earth is pristine again. Its forests breathe air free of aerosols. Its rivers flow fast and clear of sewage. Its animals, while recreated from stored DNA, live wild existences; so there are no two-headed fishes struggling for existence, or shaggy-maned but spermless male lions trying to procreate. The Earth is free. But its human population is not.

The reason for this rebirth, so history tells, is the invention of something known by the short slang of the age simply as the “H.D.” Apparently, a penurious but brilliant physics student, who was obliged to take a job as a garbage collector, built the prototype. It created a perfect but negative image of an object, so that when the copy was merged with the original, they annihilated each other. The object concerned simply disintegrated, falling back into its constituent atoms. This invention might have ended up only as an advanced form of garbage disposal – or conceivably a short-range weapon – had not the student’s supervisor been not only a physics professor but also an environmentally-charged politician. Occasionally, it happens that a new technological device ends up in the hands of powerful people who are willing to use it. The atomic bomb was like this. Old books tell of how this relatively simple invention was viewed at the time either as a godsend to finish a nasty war, or as an agent of the devil designed to murder thousands of people. A similar historical ambiguity hangs over the Holographic Destroyer.

It was used first on a shanty town in the mid-west. The inhabitants were warned to get out of their illegal and ugly habitation. And then three hovercraft moved in, each mounted with an H.D. Between noon and dusk, the machines criss-crossed the area, like a barber’s blade moving over the head of an army recruit. When the Sun set, there was nothing left of the shanty town: no rusty sheets of corrugated iron, no cloudy pages of polythene, no half-decayed turds in the makeshift latrines. The town was simply removed, and in its place was original nature.

The first experiment was judged a success; though history is silent as to what happened to the approximately 100,000 inhabitants of the former colony.

Other countries took up the technology, during a period when concern about the environment reached an almost hysterical level. The slums were the first to go – victims of what later became known as “ecocide”: the destruction of human habitations in order to preserve what remained of natural ecology. And then the practice became more widespread, as the nervous upper classes strove to preserve their own standard of living by abolishing the polluting, urban-sprawling and over-breeding segments of their societies. In a decade, half of the world’s cities had been expunged. The planet’s population began to fall, as the rich discovered that their well-being increased in inverse proportion to the number of people. After all, machines were now capable of doing nearly all jobs, and there was only a limited amount of fresh water and clean air on the globe.

The biggest shift in the meaning of the word “population” was in progress, justified by the need to save the planet.

Mexico City was obliterated in a month, under the onslaught of a fleet of 200 H.D.’s of advanced design, imported under the pretext of ridding the country of a drug-infested plague spot. The government returned to the hills, satisfied that they had saved the tottering economy.

Old Delhi’s tortuous streets and cave-like shops were reduced to dust in a week. New Delhi, with its broad roads and strategically-placed statues that told of British rule, was given a respite. But when the new part of the city was invaded by the displaced hoards from the old, it also was leveled. The country’s governors took up residence in the cool mansions once occupied by their colonial masters, sure they had done what was necessary to preserve civilization.

London proved more difficult. Massive riots erupted in the city’s poor east end, where Shakespeare had once put on his plays for the common man. A battle between the plutocrats of the west and the labourers of the east laid waste to Mile End Road, as the two forces surged backwards and forwards along the thoroughfare. But even as the fight preoccupied the two sides, the prime minister in Downing Street authorized the use of super-H.D.’s under the War Measures Act. Ten of these advanced destroyers sneaked along the Thames, coming silently on-shore among the marshes of the river’s estuary. Dagenham – the slum of old car-assembly plants – was gone before the evening’s newscasts. And the eastern one-third of London had disappeared before dawn. The survivors of the battle, who were used to cracked and filthy sidewalks, found themselves on the day after wandering back to their vanished homes with something new underfoot: soil.

Plain, simple soil.

For the Holographic Destroyer only laid waste to man-made things. A piece of the I-beam from a factory went back to iron oxide or rust. A cracked window reverted to silicon dioxide or silica. Biological material fell apart into its constituent atoms, enriching the new soil with minerals. The H.D. was in essence a benign device for terraforming, without the hazards on which scientists had speculated. There were no bomb-craters or pools of radiation. It just deconstructed the complicated creations of men, and recreated the simple ones of nature.

In so doing, the Holographic Destroyer pushed back large parts of the world's surface into a pre-industrial state. Thus the survivors of the Battle of London found themselves obliged to return to a kind of subsistence agriculture. The few patches of sedge which had lined the factory-clogged banks of the Thames quickly repopulated the brackish inlets. In time, the shellfish re-established themselves in the rich mud of the shore. This was followed by the return of the plovers and other birds, whose eggs provided a new/old source of food. The few people who came through that age found themselves thrown back in history – inhabiting a country not much different from that which greeted their ancestors when they first sailed up the river to explore Britain. In succeeding years, what had happened in that country was repeated in many others. Vast parts of the world reverted to a natural ecology. Meanwhile, the planet's population continued to decline.

Something was happening to humankind. It was slow, but biological and inexorable. It was like when an organism splits into two, except in reverse. The race's technological nucleus seemed to draw into itself, even as it made ready to shed its large burden of the uneducated. Some historians blame the H.D.'s for this; but the majority regard those machines as only a catalyst. The real cause for the split was something deeper: the drive for survival among the few who realized that civilization was threatened by the mediocrity of the many.

But what is civilization, anyway? A convenient answer is that it is defined by *things*: artifacts and antiques which the majority view as special or beautiful. This answer is, however, superficial and obscures social injustice. Thus the Ghiza pyramid was a monumental building, but constructed by thousands of slaves who toiled under the whip. A Faberge egg was a handful of precious beauty, but manufactured for a potentate whose wealth was due to serfs. The Mona Lisa was a nice picture, but it was commissioned by an oligarch who sat atop a feudal crowd.

Even Newton's book *Principia* was the result of the sinecure bestowed upon its author by a clique who controlled a populous peasantry.

As a definition of civilization, the founders of the city-state of Diaspar rightly discarded *things*. This was easier to do than might have otherwise been the case, because most of the objects in question had disappeared in the period which followed the Destroyers, known simplistically as the Interregnum.

That lengthy dark age – when the nucleus of intelligence in the world amoeba was shedding its unenlightened protoplasm – produced little of value. In fact, its only notable achievement was the launching of the omega ships. Who designed these interstellar vessels, and how many were built, is unknown. How many escaped the H.D.'s and got off the Earth, in the final cathartic division of humanity, is also a question. Some estimates are as low as the hundreds, while others suggest that millions of these craft set out to seed the Galaxy. The only sure thing is that they were crewed by the disenfranchised, who left with bitterness in their hearts.

What happened to the omega ships and their proletariat is in any case irrelevant. No message has ever been received on Earth from any one of them.

Shunning the stars, Diaspar looked inward, and grew both physically and intellectually. There were, of course, humans on Earth left outside its soaring walls. These were not exactly rejected, and certainly no violence was done to them. But after a while, they did not appear any more to beg for food at the bottom of the staircases which laced the outer side of the city's ramparts. The savages simply stopped coming to ask things of their technologically-powerful brethren. Later, the lower halves of the exterior stairs were removed, effectively cutting off Diaspar from its surroundings.

For the members of the city, while they might not know how to define civilization, knew how *not* to define it. In a sentence, civilization was *not* to be defined by diseased humans eating maggoty meat half-cooked in water laced with their own excrement, who slept on lice-infested mats and procreated without love, to bear children who were unwanted and whose small, innocent bodies were often discarded into the nearest cesspit.

Diaspar knows better.

If it has a rigidly-controlled population of 4,321 this is because it makes up for in quality what it lacks in quantity. Besides being an easy number, it is one backed by the most intricate

demographic studies. It is a modern realization of an ancient Hoyle comment: What is the point of having more people than you can get to know in a lifetime?

This is worth thinking about. However, as a demographic policy the stabilization of the population of Diaspar at 4,321 is only possible because of technology. The DNA computers now do what the old process of birth, procreation and death achieved by more primitive means. Yes, the method is sometimes criticized by some citizens as simple – even banal. But simplicity has its own elegance. If a citizen is too physically old and feels tired, or too mentally worn and feels bored, then they choose to be reabsorbed. None of their essence is lost. And for every absorbed individual, a new one is produced. As the Meetings repeatedly affirmed: It works. Please do not indulge in easy criticism before you have made the effort to think.

Zabon, in his relative old age, turned away from gazing over the forests outside Diaspar, and looked inward. The slim figure of Alvina was still to be seen in the distance, strolling between the plants on the roof of Khedron's Cube.

Abruptly, he felt mischievous. Cupping his hands around his mouth, he let out a full-lunged yell.

“Hello!..” The sound, after a pause, began echoing at intervals from the higher buildings distributed about this part of the city. The crowd gathering in the Oval for the Twenty-Thousand Anniversary Meeting was too distant to hear his cry, and showed no reaction. Alvina, however, looked up uncertainly. Her face turned in his direction. Zabon raised his arms where he stood on the top of the wall, and flapped them up and down vigorously, like a bird. Alvina raised a doubtful arm, and gave a half-hearted wave.

Almost immediately, a brainwave from Alvina registered in Zabon's mind. What are you *doing*?

“Shouting,” replied the man.

There was a pause. Then the girl asked “Why?”

Certainly, with the exchange of thoughts the commonest form of communication in Diaspar, shouting must seem anachronistic. However, sound was still important. Singing was particularly prized, as were all forms of music. A specific segment of the population even stuck to speech as a means of communication; and there was even a fringe group who did writing.

However, Zabon was in a light-hearted mood, so in answer to the girl's question about why he had shouted, he simply replied "For fun."

Alvina's response was a mental hum which rose and fell – the brainwave equivalent of laughter.

Pressing home the contact, Zabon waited until Alvina's chuckle died down, and then asked: "Would you like to come on a hike with me later?"

There was silence on the mental band. This was not due to the implications of the growing understanding between the old man Zabon and the young girl Alvina, but to the fact that people did not go on hikes any more. Indeed, the word had a medieval connotation.

Finally, the woman's thought came back, fragile with concern. "Where to?"

"To the upper edge of the city," responded the man.

"Oh!" The exclamation was heavy with relief. "I thought you meant Outside."

Now it was Zabon's turn to feel young and inferior. That Alvina had even considered an expedition exterior to the walls of Diaspar was startling. While viewed as a bit of a revolutionary by most of his colleagues, the middle-aged man had never seriously considered going Outside. It was the kind of thing citizens only contemplated when they elected to have a Sleep with its consequent dreams. Maybe the man's increasing friendship with the young girl was going to lead to problems...

"I was thinking of just walking from the Oval, up to the top edge of the city," explained Zabon.

"Oh yes," was the immediate response, perhaps touched by a slight tone of anticlimax. "Sure."

They exchanged a few bits of information, and then the man finished the conversation by saying "See you later."

As he turned back to the jungle which surrounded Diaspar, Zabon felt uneasy. The tops of the close-packed trees were far below. Birds could be seen, flitting along the crown of the forest. It was a long way down. And it was even further down, to the jungle floor, where almost anything might exist. Even animals.

It was not the hypothetical wild animals which bothered him, however. His concern was more personal: Why was he scared of the Outside?

Diaspar was, after all, a city designed to be cosy and protective. With the whole of Earth to choose from, its forefathers had decided on a location sure to bring variety to its citizens. The outer wall lay like a golden necklace on the side of a mountain, the inside of its loop encompassing all types of geography. At the lower end was the River, which as the seasons dictated was either clear and cold or muddy and warm, but always fast-flowing and broad enough to deter a crossing. The River's banks were swampy, and by consensus not populated. The marshlands gave way up the slope to pastures of thick grass, where a few non-human species grazed, more for the amusement of the population than to serve its appetite for protein. The first buildings were located further up the mountainside, and by virtue of foundations which went down to bedrock were designed to be permanent. A two-thirds majority was needed to remove any structure in Diaspar and replace it with one judged more desirable. Further up the slope, where the climate was equable, the buildings became more dense. Their juxtaposition was aimed at satisfying the primeval urge for closeness and a sense of community. Some of these structures were simple and elegant, some complicated and pretty. But who got to inhabit them was allocated by lottery, and there was negligible sense of property rivalry. The buildings around the Oval were reserved for government purposes. The Oval itself was a flat area, lodged into a natural declivity, and designed to accommodate all of the city's 4,321 inhabitants should they choose to congregate at one time. The meeting place was covered in massive blocks of stone, whose interlocking joints were as tight as the day they were constructed, though the plaza was vertically dented by the zillions of feet that had crossed its surface. Up the mountainside from the Oval were located most of Diaspar's oldest structures, including the Cube of Khedron (one of the forefathers). Many of the buildings with flat tops supported roof gardens. Some of these sported fountains, whose constant supplies of water were drawn subterraneously from the River. The heart-shaped Fountain of Godilar was an isolated water structure, set into the side of a cliff, which provided a trysting place for those experimenting with hormones. At approximately the same latitude, and effectively on the edge of the community, was also located Auryx, a natural amphitheatre where most of the city's musical events took place. Above that the climate became cooler. The hillsides were dotted with only the occasional building, and eventually there was only short grass and altitude-stunted trees. Even further up, where few people ventured, the air was cold and crisp. In the topmost cusp of the all-encircling wall was a segment of white, dazzling snow.

It was on the edge of this snowfield that Zabon and Alvina collapsed, exhausted after their long hike. How long it had taken to climb up here, it was hard to say, objectively. But the man's aching thighs told him that it had been a lengthy trip, subjectively. The woman's panting, and the rapid rise and fall of her naked breasts, showed that the journey had also affected her younger body. It was Zabon who, after taking a swallow from their container of water, finally levered himself up onto one arm and looked back down the mountain.

Diaspar lay open to view below. It was strangely quiet, and a slight breeze blew with a low, moaning sound over the short grass. A few flowers scented the air, which was cold with the tang of the nearby snow.

The city, as seen from here, seemed small and somehow vulnerable. This might be because from this altitude one could see that the River was backed by vast expanses of jungle-clad terrain, which marched away towards a vague but enormously distant horizon. From here, it was also possible to see clearly that other special aspect of Diaspar: it was divided – top to bottom – by a line that separated what one might loosely call day and night. The division was not sharp, and the day side was not completely bright just as the night side was not completely dark.

There was, after all, still weather in Diaspar. Its founders had declined to cut off the city from its surroundings in the vertical direction, though they had circumscribed it completely in the horizontal direction. Even so, the infrequent rainstorms were ameliorated by some mechanism which Zabon and most of his fellow citizens did not understand. Control of the weather – like the presence of the day/night line – had its origin in history.

Following the reorganization of life on Earth at the mechanical hands of the Holographic Destroyers, the succeeding Interregnum saw it necessary to alter the dynamics of the planet. The reasons had to do with energy balance. While open to criticism for the bizarre action which they eventually took, one should recall that the scientists of Diaspar – while clever – were not omnipotent, and could not alter the immutable laws of physics. Specifically, their brilliance did not allow them to circumvent the laws of conservation of energy and angular momentum.

During the long Interregnum, the temperature of the Sun had been increasing slowly but steadily. The laws of astrophysics which predicted this proved to be only too accurate. The

atmosphere of the Earth had, of course, become more transparent as it shed its load of contaminants following the abolishment of industrialization by the Destroyers. However, the consequent decrease of the world's temperature due to this was not enough to offset the increase caused by the Sun. The net result was an expected rise in the heat budget of the Earth which the founders of Diaspar – the eternal city – found unacceptable. Given that they were now effectively in control of the planet, the forefathers of the city took a predictably egocentric decision: they would move the Earth away from the Sun.

This is possible in theory, but took millennia in practice. The trick is to take the spin angular momentum of the Earth around its own axis, and transfer it to the orbital angular momentum of the planet in its path around the Sun. This cavalier escapade was in accordance with cosmic codes, but resulted in a drastic debacle in which the day was dethroned. The end result was an Earth which did not spin, but orbited further out from the Sun at a distance which made the planet's surface temperature comfortable. Indeed, the configuration of Sun, Earth, Mars represented a certain magic triangle, in which the three bodies formed a kind of astral pact first outlined by an ancient astronomer named Lagrange. The Earth, at a so-called Lagrange point, found itself adjusted into a state where the dividing line between day and night was fixed – running right through the centre of the city.

Ancient explanations aside, Zabon found himself staring at Alvina on the day-side of Diaspar, while a short distance away the night-side beckoned. Both the older man and the younger woman were sweating from their long climb up the side of the mountain. The cool breeze from the close snow scrunched Zabon's testicles, even as it puckered Alvina's nipples.

The idea of primitive sex hung on their thoughts as an insistent throbbing.

It was the girl who took the lead. She stared at him from unschooled eyes, and opened her mouth to put her feelings into rough words. "Do you want to..?"

Zabon, feeling slightly ridiculous but with an obvious erection, paused. Today, there were no rules about sexual attitudes of the kind which had plagued more primitive societies. So, there should not be a problem with Alvina and ...

The girl, in control, ran her hand down between her legs and withdrew it. Wetness gleamed on her fingers. "Do you want to go to the dark side?"

The man abruptly stood up, grabbed the woman, and marched into the nearby night.

Omega-05472 picks its way through the debris on the edge of the solar system, searching for its target: Earth.

The ship is massive, but crude. Most of its almost unbelievable volume is dedicated to weapons of various types. The only significant space not so occupied is taken up by a battery of cryogenic compartments. These have exactly one million (minus one) soldiers. They do not have names, because they are identical. And each is programmed to kill.

There is one vacant compartment in the row of death-bringers, because its occupant is taking his turn as the captain. During its millennia-long voyage, many captains have served. All have been motivated by a sense of wrong which is now buried in their genes. And all are intent on revenge.

Captain no-name is humanoid but not exactly human.

Physiologically, he is super-human. His eyes are set deep into sockets surrounded by extra-thick bone, and shine like gems in caves. The lenses are protected by an added nictating membrane, so that when he blinks the surfaces are swept upwards and downwards alternately. His head, neck and shoulders are massively muscled. The skin of the torso is abnormally tough – able to deflect a subsonic bullet. Legs which look as if they are derived from a reptile end in feet with claws – designed to disembowel.

The only truly human aspects of the creature's physiology are its hands. They, at least, look normal. But as the pink fingers flicker over the ship's controls, they are causing destruction even here at the sleepy edge of the solar system. For the ship is so heavy with energy that it has no use for finesse. If there is a minor planet in the way, it is not to be avoided but just blasted to bits.

Psychologically, the acting captain of Omega-05472 is sub-human. His brain in its thick cranium works well, but has no room for thoughts unrelated to the mission. If the Mona Lisa were to appear on the walls of the cramped control room, he would remove it as it were a patch of rust. However, he is not stupid. So when he fails to find the target in its old recorded orbit, he orders a scan. And finds the blue-green Earth near to blood-red Mars, both moving in Lagrange-tandem around the yellow Sun.

He presses a crude but effective relay. The million (minus one) soldiers start to stir in their compartments. In a short while, they will be fully functional and ready to regain what they once lost.

The proletariat is back.