



The Saga of Ellison's Hope

by Bluewolf

illustrated by banbury

When astronomers first detected the asteroid that would, in two or three years, pass close to Earth, they saw no reason not to make their discovery public.

Something had obviously pulled it out of its regular orbit in the asteroid belt - there was no way of knowing just what that might have been - and into an orbit that was spiraling closer to the sun; in due course it would cross Earth's orbit; and for some months would be close enough for a detailed study to be made.

Countries with a space program began to build spaceships that they said were designed to take astronauts close to it; maybe even allow them to land on it - it was quite big - to study it 'from the ground', so to speak.

And then an anonymous whistleblower - nobody ever claimed responsibility, nor was anyone ever able to identify him - spilled the beans. The spaceships being built were actually lifeboats, designed to allow a few thousand of Earth's billions to escape the planet; because calculations had shown that this asteroid would not be a 'near-Earth' object but would in fact crash onto Earth, causing even more devastation than the one that had killed off the dinosaurs - because it was bigger. Much bigger. And even if an attempt was made to destroy it, big pieces would still hurtle towards Earth.

Some governments denied this, continuing to insist that the ships being built were purely for scientific study. One or two, however, admitted that they were pushing the building of already planned colonizing ships - Earth-type planets having first been detected orbiting other suns over a century earlier, and during that century tests regarding the feasibility and implementation of eventual colonizing had been made - just in case, while insisting that selection of the personnel for those ships would be by a form of lottery - and of course the immediate families of the adults selected by lot would be included with the 'winners'.

Many people believed that.

Many wanted to believe it.

Many were cynical and just plain didn't believe a word of it.

For over a century there had been survivalists building themselves shelters in case of some catastrophe - nuclear war, for example - that might render the surface of the planet unliveable for some years; underground shelters, comfortable, stocked with enough food to last for several years. Their families had maintained those shelters 'just in case', using the older cans as they neared their use-by dates and replacing them. A lot of people who had previously not bothered, thinking that the survivalists were over-reacting, now thought again, and those who had enough money to do so began building their own underground shelters, not optimistic enough to hope that they might be among the lucky ones to win a place on one of the colonizing ships.

The one thing that no government announced was that all the places on the ships - in all countries - would actually go to members of the government, the men who provided funding for the building of the ships, with one or two places allotted to the scientists who designed the ships. The 'open' ones that spoke of a lottery for places were lying through their teeth.

They would be 'sleeper' ships, because of the distance that would have to be covered before they could reach a suitable planet; even the crews would spend much of the journey in stasis. A rotation of crew members would be wakened at regular intervals to check that everything was still going as planned before they returned to stasis. The technology was a tested one; in tests preparatory to sending people on long-term journeys people had been put into cryogenic sleep, and revived satisfactorily after quite some time though nobody had ever been kept in stasis for the length of time that would be needed to transport escapees to the nearest potential new world.

The top men in the various governments had decided in secret meetings that they should all head for the same planet; one that had been well studied over the years since its discovery. Astronomers were sure that it did have all the elements necessary for Human life; it was indeed the one that had been selected for eventual colonization.

Despite some pretty extreme ideological differences the different governments all realized that the more people they had, the greater the chance for the success of their new colony. And of course each hoped that *their* ideology would win out over all the others.

None of them had even begun to consider that their target planet might already be inhabited by an intelligent and advanced race. After all, who could be more intelligent or advanced than they, the Men who were able to travel many light years to reach a new world? And there had been no sign of radio waves coming from it, which was surely proof that no advanced culture lived there.

And so certain people relaxed in the certain knowledge that they would be among those evacuated from Earth, while the majority either planned for their own survival on Earth or simply hoped for the best. After all, large though the approaching asteroid was, there was a strong possibility that it would land in the ocean. All right, that could cause a massive tsunami, and so there was a general - though not hurried - move away from the coastal cities to inland ones and to ones that were relatively high in the mountains. After all, the thing wouldn't arrive for at least three years.

And after the first few weeks even the media lost interest as new scandals emerged...

One of the very rich - though his was not a well-known name outside his own city of Cascade - was William Ellison.

If his name had been known throughout America, he - and his family - would undoubtedly have been included in the list of people guaranteed a place on one of the 'lifeboats'. All he would have had to do was give a few million dollars towards the building of the ships. But - despite running a very successful business - William was basically a modest man. It was enough for him to be known inside his own circle as one of the best businessmen in Cascade. His ambitions - as far as he had any - centered on his two sons; he wanted them to be the best at whatever they did. The younger one, Steven, followed his father into business and by the time he was thirty was a millionaire twenty times over - although, unlike his father, he wasn't well-liked. His methods had resulted in the bankruptcy of two smaller businessmen and he had taken over their businesses for peanuts.

William, while appreciating Steven's success, did deplore the methods he used; he told Steven so, then quietly cut all contact with him, so subtly that Steven didn't realize it was his father who had dropped contact; he thought he had done it himself, breaking off with the bleeding heart who sympathized with two losers who had so little business sense they had been easy to cheat.

And Steven, thinking over the approaching situation, decided to get his name known to the authorities by donating half of his fortune towards the building of the spaceships. In return, he - and his wife and daughter - were, he was assured, assigned places on one of the ships. On being told that he smiled smugly. He would survive; his father and brother would die, and good riddance to them.

William's older son, Jim, had shown no such interest in business. He had served a relatively short spell in the army, during which time he had spent some months stranded in South America after the aircraft he was traveling in crashed. After his rescue he had gone into law enforcement, finding

detective work challenged him more than the mere amassing of more and more money. He earned enough to give him a comfortable lifestyle and, truth be told, William respected his choice, knowing that Jim was highly respected by his fellow detectives.

William did have one or two reservations about Jim's detective partner - primarily a profiler, he had a decided knack of identifying characteristics from whatever evidence they could gather; but he was so *young*! Fully ten years younger than Jim, with that much less experience of life. William had tried to discover something about young Blair Sandburg's family, but the private detective he employed could discover very little. His only known relative was his mother, who appeared to be out of the country as often as she was in it. They appeared to have been immigrants, possibly refugees though there was no proof of that, nor any indication of where they had come from, when Blair was twelve - there was no trace of them prior to Blair's enrollment in Cascade High at that time. But wherever he came from, Blair had clearly been to school; he was well educated, graduated from Cascade High when he was sixteen and went straight to Rainier University. He had his Masters in anthropology by the time he was twenty, at which time he went to the police academy. He served the regulation time on the street, studying profiling in his spare time, then applied for a position as profiler. He had ended up in Major Crime, working with Jim, in the combined position of detective and profiler.

Certainly he was intelligent and very successful - if only he hadn't been so young, and if William had only been able to discover where he came from. Not that William was a snob, exactly, but there were some places whose belief system was totally opposed to everything William believed in. If young Sandburg had come from one of those places, William would not have been happy, fearing that his beliefs would be disruptive.

William gave some thought to the situation regarding the approaching asteroid, and decided to build his own spacecraft. He could do it in such a way as to appear that he was building a large survival module on land he owned some miles outside Cascade. He would give places on board to the men who built it, his other workers, Jim and those of his fellow workers Jim recommended - even Jim's so-young partner - and of course the immediate families - spouses and children - of all those people. He contacted Ethan Cox, head of the Science Department at Rainier, who was a golfing acquaintance, and offered him, and those of his staff he might recommend, places on the ship. It was a difficult choice for Ethan, but he selected six people - another chemist, two botanists, a zoologist and two intelligent and conscientious lab assistants who were good at constructing test equipment out of almost nothing.

If there were places left, William decided, they could go to the parents of his workers - just because people were older didn't mean they would be useless in a new colony - or siblings, if they had skills that a new colony could use.

So he quietly built up a list of names...

William was no fool. He realized early on that the time to leave should be sooner, rather than later; and although the date of the coming impact had been suppressed from very early on, it was a safe bet that - again - someone would have a fair idea and spill the beans. There would be riots as people

tried to force their way onto ships or into shelters. And the worst riots could very well be in the countries where the governments had spoken of lotteries for places, as the population realized that there would be no lottery. That the top politicians had ensured their places (the lesser ones, though, probably not) while the rich had bought their places. It was possible that in this situation the desperately poor, the ones in backward countries who were living from hand to mouth, with each day a struggle to survive and with no knowledge of what was happening in the world, were the lucky ones. They would simply die, not knowing why, not knowing that for some people there had been the lying promises that offered hope of moving elsewhere.

Of course, some of them could be living in an area that remained relatively untouched by the coming disaster. Some of the Americans who had moved away from the coast and into the mountains might survive. Some of the ones living in privately-built shelters might survive. But life would not be easy for them.

Even for those who escaped from Earth there were no guarantees. Some of the ships might be destroyed during their long journey. Ellison's Hope could very well be destroyed before it ever left the solar system. But if it was, its sleeping passengers would never know.

With some four months to go before what William believed - from what he had been able to discover - would be Asteroid Strike Day, William directed everyone on his list to gather their families and head for his country estate. That included Jim and his partner, as well as six of Jim's other colleagues, the teenage son of one of them and the wife of another. The others had no immediate family.

The police had at first been reluctant to be included, feeling that their presence in Cascade might be needed to help control a population getting more and more desperate - although a lot of Cascade's population had left, moving inland to places like Spokane, a surprising number had not. William eventually persuaded them by pointing out that even in a newly-formed colony, a small trained police force would probably be needed, and they would ultimately be of more value to the human race by leaving than by staying on Earth and dying.

And so Ellison's Hope - blasted into space by remote control, because William refused to let any of the men who worked on building the ship be left behind, with its passengers all sleeping and the crew planning to join them inside twenty-four hours - set off on her long journey.

Of the official ships, one or two had already left; the others (apart from one where an enraged populace crowding aboard and refusing to leave making it impossible for it to blast off) left over the next three weeks.

And in Cascade, Steven Ellison, waiting to be contacted to claim his position on one of the ships, finally realized that he had been cheated; the government had taken his money and given him nothing in return but the empty promise of a passage that had probably never existed in the first place. And, he suspected, he was probably not the only one.

Years passed. On Ellison's Hope (and indeed on all the ships heading away from Earth) members of the crew woke, checked that the systems were all working and that the passengers were sleeping peacefully, then returned to their stasis chambers to sleep without dreaming until it was their turn to be revived again. Even the first of them had no idea what had happened to Earth; they had traveled too far to be able to detect their home planet. Their home sun, yes, but not their home planet.

Finally, however, the wakened crew of the Hope realized that they were close to their destination. They woke the rest of the crew and watched with increasing excitement as their new world came closer and closer, and then, without any fanfare, the ship landed.

The one thing the crew could be sure of was that their new home was not already occupied by intelligent beings; as they approached they could see no sign of any form of settlement.

It had been decided that the passengers would be awakened gradually; right from the start William had realized that waking so many people at once would not be a good idea. And so he had made a note of everyone's skills; what their jobs had entailed, what their hobbies were - and from that he had selected a core group who would be awakened first.

He had given some consideration to his own position, but eventually decided that, as the man responsible for organizing everything before they left Earth, he should be the one responsible when they made landfall, and so his name had headed the list.

When he was young, Jim had possessed very sharp senses of hearing and sight. William had been aware of a family history of somewhat heightened senses - his own hearing was very keen, which had been of benefit to him more than once - but he had chosen to discourage Jim's claims, telling Jim he was making things up. Basically, he had been afraid of what a ruthless government might do if they found out - and governments had been becoming more and more ruthless and corrupt during William's life. Eventually, of course, that had finally been proved by the way in which politicians had made up a high proportion of the sleepers on their way to a new life. Eventually Jim had stopped commenting on what he could see and hear.

However, William had had a revealing chat with Jim not long before they left Earth; Jim had admitted that he still had the heightened senses - and also that Blair, his partner, knew about them, knew a surprising amount about people with heightened senses, and helped him keep control of them when they sometimes threatened to overwhelm him. And so Jim and Blair were also at the top of the list.

Some of his workers had been keen gardeners. Rather than depend on finding edible plants, William had included in the cargo a lot of grain and vegetable seed. The gardeners would be the new farmers for the colony, growing plants that the humans could eat while they searched for native plants that they could use. It was possible that these Earth plants might hybridize with native species, but William refused to worry about that.

Food would, in the first instance, probably have to be vegetarian until they could discover which of their new planet's animals were edible and - if possible - domesticated. He would have liked to include a small number of food animals, but it just wasn't practicable. It had been difficult enough finding space for some educational material so that the colony's children would not grow up

illiterate, and paper on which to record the history of the colony - something that future generations might find interesting. The first record on it explained why Ellison's Hope had left Earth, and where in the galaxy Earth was.

Some of the workers had carpentry skills, and had made things like furniture as a hobby; they could surely expand that skill and build huts to provide houses, though to start with they would probably all continue to live in the ship.

Some of the women had craft skills. Revived early, they could be given the task of experimenting with native plants to see if any of them could be used for weaving; or, if there was a supply of mud available, could they make simple pottery? Certainly pottery would have to be fired... which meant that one or two scientific types would also have to be wakened early to see if they could manufacture a kiln.

There was a lot to think about, but even before they left Earth, when William gave the list of 'awaken first' to the ship's Captain, William was confident that they would manage.

Hell, they *had* to manage!

With a certain degree of control over where they landed, the ship's Captain had chosen a point fairly low on a slight slope not too far from an area where trees - or something resembling trees - grew quite thickly. Their actual landing site was covered with something resembling grass. A river meandered across the flat lower ground quite close to the landing site and about a hundred feet lower - one reason Captain Morris had landed on the higher ground. His home town had been almost totally destroyed by a catastrophic flood when he was in his early teens, and he had a very healthy respect for the power of water. At the same time, the river was close enough to give them an easy supply of water... assuming it was drinkable. If it wasn't, they had a probably fatal problem.

There were eighteen people in William's 'waken first' list, plus the twelve crew whose skills controlling the ship would, they all knew, no longer be needed; they would be expected to help the new 'skilled' personnel as and where they were needed.

The newly-awakened passengers were, after twelve years in stasis, weak; muscles that had not been used for that length of time needed to regain strength. Even the crew, who had had brief periods of wakefulness when they had spent a day or two exercising, were far from being the energetic men and women they had been before the Hope left Earth. And so the first days were spent in gentle exercise that each day became more strenuous. It was a regime that had been developed for them by June Howard, a therapist who was among that first group, and whose job it would be, first, to monitor them as they set about starting to build their new lives, second, to monitor the other passengers as they began to be awakened, and third, to keep a general eye on the physical fitness of the colony once everyone was awake. She would also act as assistant to the doctor - another of that first group, and whose services - William hoped - would not be needed for anything other than accidental injuries.

Food, too - after all that time being fed nutrients, their digestive systems had to be gently coaxed back into activity.

Everyone had been immunized against all the foreseeable diseases... though that wasn't to say that some vaccination-resistant bugs hadn't managed to make the journey with them. And while Dr. Turner was quite sure that any diseases native to their new world were unlikely to bother them for a while, the possibility of alien infection was there and they would have no resistance to such diseases.

There was another problem, one that William had been well aware of before they set out - although they were totally committed to settling *this* world, they needed the biology of their New Earth to be compatible with their own. If the biology of this world wasn't compatible, they were defeated before they even began. They had only been able to bring enough food to last thirty people for a few weeks - assuming their new world had days of approximately the same length as they were used to. (Fortunately, they were. Nearer twenty-four and a half hours than twenty-four, the days matched surprisingly closely the circadian clock of people living experimentally in a bunker with no access to clocks, no way to know when, according to the outside world, the day's activities began and ended.)

At least with the gradual awakening of the passengers that was planned, if it was discovered that they were just going to die, unable to find anything that would feed them, the ones still in stasis would never be wakened. Instead, their life support would be quietly shut off, and their 'temporary' sleep become permanent.

The first of William's fears soon proved groundless; as their first 'job' after landing, crewmen Bill Brewster and Frank Roscoe collected water from the river. They gave it to scientist Ethan Cox to be tested, and it tested pure; straightforward H₂O, with no contaminants that he could discover. His final test was to drink some. It tasted like ordinary water - better, indeed, than the chemically-treated-to-make-sure-it-was-'pure' water he had been used to on Earth - and when, after twenty-four hours he showed no ill effects, he declared the water perfectly safe. From then on, Brewster and Roscoe went to the river every day to collect enough water for the awakened personnel. They still had some Earth water on board, kept in the form of ice, but it was easier to use New Earth's water.

And each day, as they traveled to and from the river, they saw herds of grazing animals that seemed oddly unafraid of them. Animals that seemed to have leathery or scaly skins rather than hair. Of course, if those creatures had never seen men before, they wouldn't register them as a potential danger. It would make hunting them - at least initially - almost too easy.

Although they did sometimes see an obvious predator, slightly larger than the grazing animals, chasing them and pulling one down.

However, the predators made no attempt to attack the people from Ellison's Hope, and zoologist Kate Sprott suggested that their smell was wrong - the predators just didn't recognize them as potential prey.

Jim had worked doggedly at getting himself fully fit again, walking around and around the landing area an increasing number of times every day, convinced that only using his leg muscles would let them regain their full strength inside any kind of reasonable time, forcing himself to walk even when, in the mornings, his stiffened muscles screamed in agony. Blair had worked as hard, following a different regime - he chose to stick with June's gentler exercises, though he spent much longer doing them each day than she recommended. As a result, he was almost more ready than Jim to go exploring at the end of that first week, for he was not stiffening up as badly overnight.

Not that they were the first to head off to investigate their new surroundings. Tom Morris had headed off with three of his crew on the fifth day. Their immediate aim, to find a possible site for their initial settlement, for they had quickly realized that they couldn't continue to live in the ship. It was far too cramped. They didn't go far from it - cramped thought it was, in the short term it was the only shelter they had.

Orienting themselves by the sun, assuming that, as on Earth, it rose in the east and set in the west, they had first gone south, soon discovering that the relatively high ground they were on quickly lost altitude; and Morris instantly dismissed that direction as viable, at least in the short term. He had no intention of suggesting that the people of Ellison's Hope build their first settlement on what was very probably a flood plain.

They would have to spread out a bit, of course - but spread out to the most favorable and safest places. So on the sixth day, Morris's group set off northwards, and when they didn't return that night, everyone assumed that that direction *was* viable and the group was exploring further.

The next obvious direction to explore was the low ground to the west, so another group from the crew headed towards and across the river, although Morris had suggested that they might have to go a considerable distance before finding an area it would be safe to settle - the flat ground in that direction seemed to stretch as far as the horizon.

Knowing that, Jim and Blair headed away from the river, towards the 'trees' to the east, taking with them one of the machetes that had been included among the tools the ship was carrying.

Nobody had paid much attention to the 'forest' during the week they had been there, except when crew members Bruce, Laverne and Yendale had cut a small 'clearing' just inside it and - with some difficulty because of the roots - dug a pit to act as a latrine. Large enough for the initial group, something more would have to be done as other passengers were awakened, but by then the immediate area would have been explored and the necessary spreading out begun.

Jim and Blair entered the forest a short distance from the latrine with Jim, who was carrying the machete, in the lead. He hacked a narrow path for them, listening carefully as they went deeper into the trees. Behind him, Blair looked at the plants, hoping that, even twelve light years from Earth, convergent evolution would provide plants of a type he would recognize as potentially edible.

As they went deeper into the forest they realized that the 'trees', clustered so thickly at the edge that they formed a positive barrier, thinned out, and it wasn't long before Jim fastened the no-longer-needed machete to his belt. Blair took two or three running steps to catch up, so that they were walking side by side.

They looked around as they went, both now looking for plants that might in any way resemble ones they knew.

"Everything seems very quiet," Blair said after a while.

"Yes. I'm not hearing any sounds that might be made by insects. That was one thing I was always aware of when I was with the Chopek." Blair was one of the few people who knew of the months Jim had spent with the South American tribe. "At least it means we won't be bitten."

"No insects? That's bad," Blair said.

Jim glanced at him. "How?"

"Well, combined with the fact that I don't see any flowers... Flowers and insects sort of evolved together. No flowers or insects to fertilize them means no fruit or nuts... and ultimately, once the seeds we brought have sprouted and been harvested, no more crops, apart from the grain that's wind pollinated."

"But the plants here have to reproduce somehow."

"Tubers, rhizomes, suckers, runners... all vegetative. All right, tubers and rhizomes might be edible, the pith of some plants is quite nutritious, but there are some plants that are edible but have no nutritional value at all. You could stuff yourself at every meal and still starve to death. Hell, listen to me! I meant back on Earth. Here... it's up to us, the first awakeners, to experiment. Discover what we can eat... "

"I know," Jim said. "We don't have very long, either. Dad brought as much food as he could pack onto the ship, but there's only enough to last the first awakeners about two months, and we've already lost a week of that time just getting fit enough to explore."

"And even if there were flowers and insects, this could be planetary spring so there'll still be no fruit or nuts for quite a while. We don't even know how long a year is, yet."

"It might even be planetary winter," Jim muttered.

Blair glanced at him. "It's a bit warm to be winter, surely? I mean... if this is winter, how hot will summer be?"

"There might not even be seasons," Jim went on. "The Chopek didn't really have the concept of a cold season, and I don't remember them ever storing - say, fruit, against a time when there wasn't any on the trees."

"Yes, Morris might have landed us near the planet's equator... or maybe the axis is almost totally vertical, so there won't be a seasonal shift of the sun."

"There's so much we need to discover about this planet... but finding food is top priority."

They went on in silence for a few minutes. Then Jim stiffened, putting out a hand to stop Blair.

"What?" Blair murmured.

"Something up ahead," Jim breathed. Blair followed as Jim moved cautiously forward, slowly... slowly.

When Jim finally stopped, it took Blair a moment to see the small, probably family, group of animals digging with their noses near the base of one of the trees... digging up something that they then ate.

They were roughly the size of small pigs, resembling nothing as much as a group of lizards and, remembering the description Frank and Bill had given of the animals they had seen, Blair found himself wondering if reptiles were the top animals native to the planet; if the planet were in a sort of Cretaceous, or even Jurassic, era. And although on Earth insects had evolved long before that, it didn't follow that evolution was following the exact same progress here.

They watched as the small herd finished eating and moved away. Jim waited for a few minutes, then nodded. "They've gone."

"Let's see what they were eating," Blair suggested.

The soil was well dug over, but both men knew it was unlikely that the animals had dug up and eaten all of whatever they were foraging. They began to scrape soil away and finally uncovered a root; there were growths of various sizes along its length, and Jim said quietly, "This is what they were eating."

Blair studied the tree carefully. "I'll know the species again. Let's take some of these... well, tubers, really, and once we're back at camp we can check them for edibility. Just because those lizards could eat them doesn't automatically mean we can. There were animals back on Earth that could eat plants that would poison us, or have no food value."

"I know that," Jim said.

"Of course, you'd have seen that when you were with the Chopek. Though you'd have gone out with the hunters, not gathered plant food with the women."

"They sent me out with the women a few times to start with," Jim said. "Initially I knew less than some of the kids; so they thought of me as a child - one who learned quickly, but I had to go through the training a child got. Even the boys went out gathering plant food with their mothers until they were about six. That was when their fathers began to teach them how to hunt. So I had to go out gathering vegetable food for two or three weeks until they were sure I know what was good to gather. They didn't have to teach me how to hunt - I already knew how to use a bow - but I did have to learn how to make my own bow and arrows. Then I had to undergo their rite of manhood - surviving on my own for ten days - before I was fully accepted into the tribe as an adult. Even Incacha, who understood about my senses, said I had to do that before the tribe would accept me, even though, as a warrior, I had obviously undergone whatever rites my own people followed."

That was more than Jim had ever admitted when they were still on Earth. Of course, back then, what reason would he have had to tell even Blair that?

They gathered up some of the tubers, putting them into the backpack that was Blair's constant companion - back on Earth, someone, Jim couldn't remember who, had once said that Blair might as well be married to the thing - and went on.

The trees were all fairly delicate - none were the sturdy, thick-trunked giants of Earth, that could, albeit with considerable effort, be sawn into planks. "I think we're going to have to settle for buildings with a kind of daub and wattle walls," Blair said, breaking a short silence.

"Thatched roofs and sort of cane furniture," Jim agreed.

"But at least there's plenty of material here for the number of houses we'll need," Blair finished. "We'll need to watch which trees we take, though - we don't want to use the ones that can potentially provide us with food for building."

"I've been seeing quite a few of the tuber trees," Jim said.

"So have I - but I'd expect that; each tuber has the potential to grow into another tree. Though I wonder... "

"Yes?"

"Thinking about plants like potatoes... might the 'trees' die once the tubers are well set?"

"There's one over here - let's have a look at the... the trunk, the stem?"

Blair chuckled. "Yeah, which do we call it?"

They crossed to it and examined it. It felt pretty solid. The lowest leaves were above their heads; with the machete, Jim cut one off close to the stem/trunk, and they examined the cut.

"Looks pretty fibrous," Blair murmured. "And look... would you call those growth rings?"

"Looks like it," Jim said. "I think we need to take this back, see what Simone makes of it." Simone Bell was one of their botanists. The other one, Harry Daniels, had already started planting some of the seeds they had brought, experimenting with soil from different parts of their immediate surroundings - fairly dry soil from the outskirts of the forest, wetter soil from beside the river, and what could be called intermediate soil from different places between the two. Simone had been helping him, but that was his 'baby'. She would be glad of the chance to do some investigative work on her own.

"Good idea," Blair said. He glanced at Jim, correctly assessing how tired he was. "Now I think we've probably done enough for today - I don't know about you - " he lied convincingly, knowing that Jim would be unable to detect a white lie - "but I'm getting tired. No point in overdoing it today, maybe having to rest tomorrow instead of going out again."

He knew he'd made the correct call when Jim didn't object. "Yeah, we've not been out for long, but I'm beginning to feel I've maybe done enough for today - we've only been awake for a week, after all. Get back, relax for the rest of the day, then head out again tomorrow."

"But I think we've accomplished quite a bit. This one plant - if it does prove edible - is a big find."

They turned and headed back.

When Jim and Blair got back they gave the tubers to Ethan Cox and the leaf to Simone. Both scientists called on their fellows for help and started investigating immediately, and by evening Ethan had determined that the tubers were edible and nutritious. It took Simone a little longer to reach a conclusion about the leaf, but she finally determined that the plant was perennial.

Morris's group returned not long after Jim and Blair. They certainly seemed to have landed in a reasonable area for initial settlement; the ground, Morris reported, had continued to rise gradually for several miles, then leveled out some five or six hundred feet above the plain. They had passed the northern border of the forest just before they reached the highest point, and seen that it extended for a considerable distance to the east. And Jane Wilkin, one of his group, had already made a start on mapping the immediate area.

In addition they - the first group to have spent a night in the open - reported that their new world had several moons of varying sizes; one not quite as big as Earth's moon, the others - at least six of them - smaller.

The following day, Jim and Blair went back into the forest, exploring in a slightly different direction. They found a lot more of the tuber trees, but both men knew that they couldn't depend on those to feed an increasing number of awakened 'colonists'. They had to find a wider food source.

Following a slightly different route back, they came across one of the pig-like lizards; it was alive, but injured - possibly in a fight with one of its fellows? It raised a weak head to look at them, then clearly decided they weren't a danger and let its head drop again.

Jim and Blair looked at each other, knowing that they couldn't leave the beast like that, to die a lingering death; Blair crouched near its head, holding its attention, while Jim quietly and without fuss brought the machete down across its neck, killing it instantly.

They returned to the ship carrying the carcass, and immediately gave it to Ethan. He cut off a foreleg, and the rest of the animal was put into the ship's limited freezing compartment beside what was left of the water ice from Earth.

The other exploratory group arrived back soon after. They hadn't traveled as far as they had expected to - the ground had been unexpectedly boggy; with the river there they had thought it would be reasonably well drained.

"It would be possible to dig ditches to help drain it," Hal Pearson, who had led the group, reported, "but there would always be a tendency for the ground to flood."

They had brought back a bulbous plant that Pearson said was growing quite profusely in the boggy ground, and Ethan and Simone took it, split it between them, and began to investigate it.

"If it's edible," William said thoughtfully, "it would make sense not to try draining the ground it grows on; we just need to make sure we don't harvest it too irresponsibly."

Harry Daniels nodded agreement. "We'll need to establish how quickly it grows and propagates, to know how much we can afford to harvest." He glanced at Pearson. "Any chance of getting a couple of the things so that I can try growing them?"

"No problem," Pearson said. "Frank, Bill - haven't you seen them when you were getting water?"

"No," Bill said, "but did you find any on this side of the river? We haven't been finding the ground particularly boggy."

"Good point," Pierre Laverne, one of Pearson's group, put in. "Remember, Hal, we didn't hit the boggy ground until we were over the river, though we did hit it almost immediately we crossed. The ground on this side seemed just a little higher."

"I'll go and get a couple of the plants now," Will O'Malley said.

"Doris, go with him," Hal said, and Doris Brough, the fourth member of their group, nodded and followed. Until they knew more about their new world, it made a great deal of sense for nobody to go off alone.

They were back inside half an hour, and gave the half dozen plants they had collected to Harry. He muttered a quick, "Thanks!" and headed off to plant them in soil collected from beside the river in that half hour by Donald Bruce, one of the two crew who were assigned general 'gofer' duties.

That set the routine for the next few days. The exploring groups went off exploring, sometimes staying away overnight, and all collected anything they thought might be edible. Jim took the time to make a bow - though not as flexible a bow as he would have liked, and knew that he would have to do some experimenting to find something better to make one with - and some arrows, and with Blair, Donald and the other 'gofer', Adam Yendale, went out one day and shot one each of the different animals grazing beside the river. Ethan took a foreleg of each to test, but because the first one had proved to be suitable for them to eat, he had no doubt that these would also be a potential food source.

Kate Sprott suggested that because there were animals on land, there would almost certainly be fish in the river. Paul Carney, one of the lab assistants, whose hobby, back on Earth, had been fishing, volunteered to try his luck.

"But that was one thing we didn't bring," William said. "Anything to fish with. I never thought of fishing as an option." He had been too used to his housekeeper Sally buying fish caught in the sea, he hadn't thought of fresh water as another source of them.

Paul grinned. "I did," he said. Each person on the ship had been allowed a small locker for any small personal items - mementoes, really - that they hadn't wanted to leave behind. "I've got some line and a few hooks; all I need to do is find a fairly flexible pole and something to use as bait."

"Remember to take someone with you," Tom said.

"I'll go." Herman Gundorf, the other lab assistant, volunteered. "A fish trap is another possible way of catching some - I can try to make one while I'm watching Paul. Then we can leave that in the river for a day, see if it catches anything."

The eight passengers with gardening and craft skills who were in the first batch awakened had also been busy. There wasn't much for the three gardener/farmers to do yet, though they had discussed with Harry Daniels the test planting of Earth seeds he had done and the possibility of experimenting with small tubers. Three of the other five had begun experimenting with building as soon as they felt strong enough to make a start, and the first small cabins were already in use. Whether they would stand up to a raging thunderstorm had yet to be determined - the weather had continued dry and pleasant, though they had had one day of wind, but the one cabin that had been finished at that time had survived unscathed. And the building also proved to be watertight when, a couple of days after the storm, it rained.

The last two wakened passengers - a husband and wife team - were experimenting with making mugs and plates using a viscous mud from near the river, but a way of firing them had yet to be discovered.

William was quietly pleased with the progress his chosen first group was making.

The food brought from Earth had all been pre-cooked and could be eaten cold, or was something that didn't need cooking. Now that they were about to try some of New Earth's produce, however, they needed to cook it. Raw meat and tubers weren't really an option.

It was Blair, who had studied anthropology, who suggested cooking meat in pits. It would use less wood - which was good because they couldn't guarantee the resources available to them were infinite. In addition, although they had identified the tuber tree, they still didn't know if any of the other trees would be a food source. The one thing they didn't want to do was destroy this world before they had a chance to make a home on it.

William found himself nodding with a new appreciation of his son's young friend. On closer acquaintance he was proving to be intelligent, knowledgeable and above all, sensible, and William was pragmatic enough to be willing to admit when he had made a mistake - even when he had never openly voiced it.

The pit idea worked perfectly, once they managed to start a good fire - they had to experiment with the various materials available to them to find the best ones, the ones that would give the best heat - and John and Elma Roscoe were inspired to try a pit to fire their pottery. Not as efficient as a proper kiln, but it did work; the pottery was usable.

With a food supply now guaranteed - Paul and Herman had proved surprisingly successful with their fishing, so there was fish as well as lizard meat, tubers and a vegetable surprisingly like celery - William decided that the next group should be wakened.

It consisted of more people who had the potential to become farmers and hunters as well as explorers, and included Jim's police colleagues - a police force was not yet needed, with luck would not be needed - at least until the first generation of New Earth-born colonists was adult, but they were there and could train some of the teenagers among the passengers in law enforcement. William had not become as successful as he had by being naive about how easily some people could slip into a dishonest lifestyle, finding stealing easier than working.

With that in mind he discussed possible penalties with the police group, since imprisonment wasn't a viable option - not with buildings made out of wattle and daub; and once again it was Blair who surprised him with a solution. For minor offenses, the culprit should work for the offended until he had paid back the value of whatever he had stolen; for more major, or repeat, offenses, the culprit should be ostracized. Banishment was also an option, but not until they had found some way of taking the culprit some distance from the furthest limits of their settlement.

They still had to discover how long a year was on their new world, but they had established that the largest moon orbited New Earth in thirty days. That meant they could count time in months that were the same as the ones they were used to. They were still trying to establish how long the other moons took to complete an orbit, but the next largest seemed to take forty days. Jane took on the job of keeping track of the various moons and trying to establish how long a year was as well as mapping their immediate surroundings.

However, Jim and Blair's guess that this was a world without seasons quickly proved accurate. It might limit the area they could settle, but one of the things William had impressed on them was the need to keep their families small. Not that they had needed his instructions on the subject; they had all seen the problems that a too rapidly growing world population had inflicted on Earth in the previous century.

More exploratory teams went out, and the length of time they stayed away slowly grew longer as they became completely familiar with the ground close to their landing site. Some more food sources were found, and each month more and more sleepers were wakened until all had been 'revived'. They too began to spread out, staying on the higher ground, establishing small groups of houses - not more than six together to start with - an increasing distance from the ship which they all still counted as their base.

The trial planting of grain had proved successful, and each group, headed by someone whose main hobby on Earth had been gardening, took some of the seed that had come from Earth. In addition, they took some tubers from the local trees, creating small 'woods' of the tuber trees near each settlement.

The explorers had found some other plants with rhizomes that had proved to be edible as well as some with nourishing tap roots that seemed to spread by runners; one particularly tasty one with a very thin root was quickly adopted as a flavouring for one of the other root plants, one that while nutritious was positively bland eating. Some of all of those plants was given to each settlement.

The lack of seasons to register the passing of time made it difficult to count years - but they quickly adopted a lunar calendar, and counted 'years' as twelve lunar months.

Some eighteen months into their occupation of New Earth, with their colony flourishing, William - remembering that the 'official' spaceships had been aiming for this world as well - decided to send out a fairly large exploratory group to see if they could find any of those 'official' ships. The group, led by Tom Morris, consisted of his usual team mates - Jane Wilkin, whose additional job was to map the area they covered, Mary Scroggie and Sam Goldberg; the second team of Hal Pearson, Pierre Laverne, and Will O'Malley, but not Doris Brough, who was now married to Will, because she was five months pregnant; Jim, Blair, Simon, Brown and Rafe from the police group, botanist Harry Daniels, because if they could find more edible plants that would be a positive bonus, and Gavin Turner in case they needed a doctor - during their months on the planet he had not been called on often, and when he was, it was mostly for injuries. Therapist June, who acted as his nurse, would be able to deal with any injuries for the time they planned to be away.

The group decided they could live off the land as they went, but did take a small supply of food in case they hit an area that had few resources.

They set off eastwards, knowing that to the west and the south the boggy ground stretched for many miles; Hal's team had gone both ways more than once, but had never reached the other side of the bog. Northwards, after some seven days' travel, the ground became increasingly mountainous. Eastwards, however, while remaining on a somewhat higher elevation than the bog, had maintained that height, never varying by more than a few feet. A river ran across it to join the one they used for water; it was wide enough that it probably extended for many miles to the east, and it would give them something to follow, a never-failing marker that would eventually let them return home easily. In addition, they would be able to use one of the smaller moons, which had an orbit of approximately one of their years, to help them hold their course; it was currently visible - to Jim, at least - during the hours of daylight.

For the first three days they simply followed the river; the land had been explored that far. After three days, they reached another forest - this too held many tuber trees, but they had also found some trees there that weren't present in the forest beside their landing site; one kind secreted a sweet sap that, like the thin tap 'radish' root, added flavour to some of the blander roots that formed part of their diet. Up till then, however, nobody had followed the river right through this forest and out the other side. Indeed, nobody much went that far - only one or two of the food gatherers, to get some of the sap from the sugar trees.

It took the group two days to travel through the forest; on the other side, the plain continued, undulating gently, though to the north they could see the mountains. They walked on.

As they went, they zig-zagged slightly if they saw something to the north or the south of their route that looked interesting. Harry collected some rhizomes from plants that didn't grow on their side of the forest - yes, he admitted, it was interfering with the natural spread of plants, but once these had been cleared by Ethan or Bob Wolfe, they would be farmed. If they weren't cleared for consumption, they would be carefully destroyed.

It had been decided that they would head out for a month. That would let them cover, and partially explore, some four to five hundred miles.

Day after day, the river led them on. Mostly the weather stayed fine; they had discovered that when it rained, it rained heavily for up to two days, and then it remained dry again for two to three weeks. Luckily, even when it was wet, it remained quite warm; hypothermia, for these people originally coming from a colder climate, was not going to be a danger.

One of the things they assessed was the suitability of this ground for settlement. Although there was plenty of ground available on their side of the sugar sap forest, the day would inevitably come - though probably not for at least two to three generations - when their numbers did increase to the point where they would have to spread out further. It wouldn't be their problem, but it made sense to look to the future.

On the twenty-third day of their journey, Jim saw something glinting in the sun some distance to the south-east, and they headed that way. After two or three miles, everyone could see that the sun was shining off something metallic; another two miles and they could see two spacecraft - one in good condition, but the other a twisted wreck, having obviously made a really bad landing. Not to put too fine a point on it, it had almost certainly crashed from a fair height.

There was no sign of anyone anywhere near the ships.

They advanced cautiously.

As they got closer to the ships, they began to see skeletons, many of them disarticulated.

"Were these people attacked by some of the predatory animals?" Sam asked a little nervously.

"Not the way they've been left," Gavin said quietly. He went over to the nearest skeleton and checked it over. "Whoever this was *was* attacked," he said quietly, "but not by an animals. The body has been butchered."

"Butchered?" Mary asked.

"There are knife marks on the bones." He looked around at the others. "I'd say the people here turned to cannibalism."

Blair was looking around carefully. "I'll add something," he said. "I think they ate the meat raw. All right, it could have been a while ago, and the grass has covered the signs, but I don't see any indication of any kind of fireplace."

They carried on.

Close to the crashed ship there was a huge pile of bones. Gavin checked them. A lot seemed to be shattered, and he nodded slowly. "I'd say the people in the ship that landed started off by eating the bodies of the ones killed in the crash. But of course the bodies would only last a few days before the meat started to go bad - we all carry an army of bugs, both good and bad, inside us. It's those bugs inside us that start the decaying process."

"But... but why? Okay, this area isn't quite as good for natural resources as our landing site, but there's still the river for fish, the animals, some edible plants - " Hal said.

"Good question," Tom muttered.

They carried on checking the site.

There were two bodies inside the landed ship, one a skeleton - and the other still with some flesh but in an advanced state of decay. Gavin looked at the second body.

"At a guess, this was the last survivor, unless a few of them headed off to get away from the cannibalism. Once he'd eaten the last body - " he indicated the skeleton beside it - "he'd starve."

The group left the ship and returned to the open air.

"I think they started off by eating the ones already dead. Then the stronger ones started killing the weaker ones. Eventually probably only two were left, and one killed the other... and died when there was no more flesh he could eat. He might even have poisoned himself eating decaying flesh."

"But... but why? There are plenty of resources here!" Rafe exclaimed.

"Only for people who know how to use them," Blair said.

"I don't follow you," Rafe said.

"Who were the passengers on the official ships?"

"It was never actually made public - but some of them were supposed to be chosen in a kind of lottery... "

"Who do you think were most likely to be on those ships?" Blair asked.

It was Simon who said, "The people who ordered them built. The politicians. Maybe some of the rich who could buy their way on board... "

"And how many of them would have any kind of survival skills?"

"They wouldn't," Jane said.

"And that was the difference between them and the Hope," Blair went on. "William gave the places on his ship to his workers and to people he knew had skills that would help the colony survive. People who weren't afraid to *work*. The people on the rest of the ships were too accustomed to someone else doing the work when they snapped their fingers.

"And I'd guess that the ones on the ship that did actually land were all wakened at once, instead of a few at a time the way we did it. Hundreds of people with no survival skills all looking for someone else to do the work. I'd guess that all the other official ships are like this - that when - or if - we find them, there'll be the signs of cannibalism and no survivors."

Over the next couple of days they put all the bones they could find into the crashed ship, then Blair quietly started a fire and they burned the ship and its contents - the nearest thing to a funeral they could give these people who had never had a chance.

The following morning, over a breakfast of oatmeal from the food they carried, Tom said, "There's something I want to check out on that other ship."

Puzzled - what could this ship have that their own didn't? - the others followed him when he walked over to it and went in.

"You think we might be able to salvage something from it?" Hal asked.

"I'm... not sure." He led them to what had obviously been the crew section of the ship. "Yes!"

The others who had been crew began nodding as they, too, saw what Tom had registered - something that their ship didn't have. A small... not exactly a lifeboat, but certainly a small independent vehicle that was capable of flight.

Tom checked it. "It's in good condition, fueled up - I'd say it was meant for initial exploration of the area around wherever the ship landed, but it hasn't been used."

"Who would be able to pilot it?" Jim asked.

"One of the crew," Tom said.

"And who would the oh-so-self-important passengers see as the least valuable people on board?"

"The crew?"

"At a guess, once the bodies in the other ship had been eaten, the crew of this one would be the first to be killed."

"You could be right," Tom agreed. "I suppose some of them might have realized that and tried to get away - "

"But they still wouldn't have had survival skills, and they'd have starved to death too."

Simon was shaking his head. "To put so much thought into escaping from Earth, and so little into how to survive on a new world... " he murmured.

"Shows how basically stupid most of the rich and powerful men of Earth really were," Blair said. "I'll bet, too, that at least 90% of the people on all these ships were men."

"You could well be right," Tom said. "There was a sexual imbalance even in our ship - a crew of twelve but only three were women, though most of the reason for that was training... and there are more male than female scientists - "

"Training again, and the expectation on Earth that science was more a male pursuit than a female," Blair said. "But among the passengers the balance is nearer fifty-fifty. So our group isn't going to have a massive drop in numbers as the current adults die."

Jim was still looking at the small ship. "Tom, can you pilot this thing?"

"Yes."

"What's its range?"

"Depends on how many spare fuel cells there are." He opened a hatch and looked in. "Probably around five, maybe six, thousand miles."

"Right - then let's spend a couple of days checking the land further afield. If we can finish off by flying home, fine; if not, as long as we can get back to here, we'll manage to get back on time."

Over the next two days they found eight more landed spaceships; all the landing sites were the same as the one they'd just left, the ground thick with bones from butchered human bodies. Two of the ships had a small craft like the one they were in, and having checked them for compatibility, Tom took the fuel cells.

"You'd think, wouldn't you, that just one of these ships would have had a few competent people on board," Brown said as they took off from the eighth site. "Did they expect to find a fully-staffed Hilton wherever they landed?"

"Probably," Gavin said.

Tom shook his head. "Nobody else was as forward-looking as Mr. Ellison," he said. "I'd suspect that even if they were advised to take some artisan personnel, the suggestion would have been dismissed as - well, someone unworthy of a place trying to get one. The spaces all had to go to the politicians, the ones used to giving orders, and maybe a few of the really rich." He looked at Jim. "Is it worth searching any further?"

Jim sighed. "Probably not. On the evidence we have, I'd guess they're all the same, and some of them could be beyond the range we have, even with those extra cells."

"Then let's just go home. Jane, did you manage to map where they are?"

"Only very roughly," she said.

"Not that it really matters. We can leave a report about them so that our descendants know what to expect when they eventually spread out that far. And with the fuel we have, we can check out the ground to the west and south, see how far the bogland goes, have a look at the mountains to the north... By the time we're out of fuel we should have a good picture of the land round about where we are."

The explorers settled back to cover the distance it had taken them twenty-three days to walk in just over two hours.

When they explored to the west, they found that they weren't too far from a fairly sizeable ocean; however, the easiest way to reach it was via the river. Walking across the boggy ground was - as Hal's group had discovered - slow and quite dangerous. Experiment produced a workable style of boat, and they built several; some of the colonists used them to sail to the sea where they could catch bigger fish than those living in the river. They exchanged those for plant food, providing the start of a barter economy.

Over the years, the colony flourished. Some of the lizards were domesticated; others were sustainably hunted for food. Buildings remained as wattle and daub, although a group effort quarried enough stone from the mountains to erect one building that was used to store everything they recorded for the future - a suggestion that they use the ship for that purpose was vetoed on the grounds that eventually the ship would probably rust, or its seams would fail, and it would no longer be fit to store anything that needed to be kept.

Although Jim was happy with his role as explorer, William persuaded him to marry, so that his sentinel gifts would be passed on. Of his three children, two proved to be sentinels; the third carried the potential, and in another two generations there were several sentinels in the expanding colony. Blair, too, decided to marry to pass on what he suspected was the guide gene, and his children and grandchildren did indeed prove able to help Jim's descendants.

Each of the specialists - the medical personnel, the scientists, the teachers - passed on their knowledge to their children, but also to any other children who showed an interest in the subject. It was the nearest thing to a hereditary system that the colony developed.

The one thing the colony totally avoided was the development of a bureaucratic 'class'. While he lived, William was a benevolent dictator; but he directed that on his death, all decisions should be made by consensus, and the colonists, remembering the disaster of the official spaceships, were happy to adhere to that form of 'government' - a true democracy. His wishes were helped by Jim, who didn't want to take over as leader.

As the first colonists died off, any mild nostalgia that anyone might feel for Old Earth died with them. By the time the grandchildren of those first colonists were adult nobody alive remembered the place except as a tale told by their elders. The colony slowly enlarged, mostly spreading eastwards though a few went north as far as was feasible, helped by the sentinels who were so much a part of their lives. In time the ones who moved furthest found the decaying remains of the first of the 'official' ships that Tom Morris's party had reached... but it would take a long time for anyone to reach any of the others. In any case, who cared? The ships were only a reminder of how stupid so many of the inhabitants of Old Earth had been.

Life for the descendants of Ellison's Hope was indeed full of hope, in a world where everyone was equal.



Footnote:

The asteroid struck the North Pacific. Its force was enough to increase the slant of Earth's axis by nearly three degrees, causing a change to the seasons. Even cushioned by the depth of water, it also triggered earthquakes, avalanches and volcanic eruptions worldwide. The tsunamis it caused swamped the coastal cities - even the ones furthest from the impact - and flooded low-lying land for many miles inland; most of that water drained back into the sea within a few days although very low-lying regions were almost obliterated. The coastlines of the world were permanently changed.

The regions that fared best were those above a thousand feet in countries that had not been earthquake or volcanic prone, although many people died when their houses collapsed, unable to withstand the shaking the impact caused.

It took a number of years for the new 'norm' to establish. By that time the human population had dropped from nine billion to roughly ten million. But although most had moved to relatively life-friendly areas, life for them was far from easy. Even the survivalists who thought they were well equipped to continue living as they had done until things went back to 'normal' discovered that it was impossible to do so. Things quickly reverted to the way they had been three or four centuries previously; almost all technology had gone; local farming was the only viable way of feeding the people - inter-country trade, inter-country communication, no longer existed; medical science had reverted to (mostly) herbal lore. Diseases that had been almost eradicated resurfaced.

Over the years, folklore began to speak of the people who had escaped from Earth - chosen by lot from the population (someone had obviously remembered the false promises made by certain governments) they had set off in a huge armada to start a new life elsewhere; and one day they would surely return, to make Earth once again the wealthy, well-populated place it had been before disaster struck. But as the years passed even that hope began to fail, and was eventually forgotten, passed off as a fairy tale.

They were never going to learn that only one ship out of the many that left Earth had ever had the remotest chance of making a success of that new life; and it was the people aboard that one ship who were keeping Mankind alive and flourishing on a planet twelve light years from its original home on the third planet of a fairly minor sun. And, happy with their new life, they had no reason to try to return.