



MACHINE DREAMS

THE SANDMAN INVASION

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Machine Dreams: The Sandman Invasion

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Foreword

Jim Clunie

The sandmen and their etoile masters have proved to be one of the most enduring menaces of the Dark•Matter setting - insidious, organised and ruthless. They threaten heroes not only with violence and death, but with transformation into agents of unbound machines from an unknown time and dimension.

The idea of a fan-written expansion on the sandmen, along with other major creatures of Dark.Matter, arose from the Dark•Matter mailing list in February 2002. Besides the material written for this project by James Nostack, David Tormsen and myself, the collection includes references from mailing lists, online chats and games that provided more clues to what the sandmen might be and how they operate. This work doesn't promote a new interpretation of what's gone before, but rather, many theories and directions from which to choose.

You can find more information on sandmen and etoile in the Dark•Matter Campaign Setting and the adventure "A Head for Business" by JD Wiker, published in *Dungeon* Magazine No. 80 and reprinted by kind permission of Wizards of the Coast at Alternity.Net (http://alternityrpg.net/latest_res.php).

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Origins of the Etoile: Extraterrestrial

James Nostack

The Synergy Hypothesis

The Basics

The Sandman Virus, according to the Synergy Hypothesis, is extra-terrestrial in origin. It's an engineered pathogen created by an extremely ancient alien race. This alien race, called the Arcadians, developed the virus as a method to colonize the galaxy. The virus has seeded billions of star systems over the last two hundred million years. Our planet just happens to be the latest breeding ground.

It should be noted that the Sandman Virus was *planned*, and displays extreme complexity. It relies on nanotechnology to infiltrate, infect, and dominate new eco-systems. When the virus reaches its final stage, it constructs hordes of robots, artificial intelligences, and nano-lifeforms. These other machines, like the virus itself, are highly intelligent, and possess cultures of their own. Each is highly adapted to its task, and this level of specialization permits the entire cluster of artificial lifeforms to function with extreme efficiency. The whole collection of robots, AI's, nanomorphs, and software-life is called **the Synergy**. Owing to the Synergy's immense age, territory, and implacable reputation, almost all other starfaring species dread and fear them.

Under normal circumstances, the Synergy would have no trouble destroying the Earth and everyone on it: those sorts of tasks are routine. Yet the Synergy's colonization virus cannot operate freely on Earth. The despicable Greys have taken an interest in the planet, and while they may not have humanity's best interests at heart, they would hardly stand by while the Synergy devoured our world. At the moment, the Greys far outnumber the Synergy forces, and diligently scan for any sign of trouble. For the last two centuries, the Synergy has had to operate in the shadows. It cannot take over the Earth until it has driven off the Greys, but it can't expel the Greys until it has conquered the Earth.

Presently the Synergy focuses its efforts on subverting human institutions through a specialized nano-virus. The Hoffmann Institute nicknamed these infected humans "Sandmen." The Sandmen infiltrate human communities and spread the plague to all layers of our society. When the time is right, the Synergy will activate these sleeper agents and drive off the Greys once and for all. Without their pesky interference, the Synergy will proceed with its plans for Earth...

The Synergy Architecture: Info-Trophic Layers.

Technically, "the Synergy" refers to a meta-culture of symbiotic software that has colonized untold thousands of star systems, but has yet to appear on Earth. For this reason, an in-depth discussion of the Synergy is a little bit like talking about political developments on the other side of the globe: the details may be important, but won't have an immediate effect on your daily life.

The Synergy exists as a combination of robots, artificial intelligences, and software simulations of once-living creatures. Each of these life-forms occupies a different spot in the information-processing hierarchy. Just as biological life has evolved to fill trophic levels such as net primary producer, herbivore, carnivore, and scavenger, each component of a Synergic collective occupies a distinct info-trophic layer. Commonly several info-trophic layers occupy the same physical shell.

At the base layer are the robots, more commonly known as **Droids**. Droids gather information from "raw" reality; they provide new data for the other layers to deal with. In this respect, they resemble plants in the Earth ecosystem. Droids also gather power from solar cells or fusion reactors. For the most part, the Droids act as "expert systems" about the day-to-day business of the real world. The **Etoile** are Droids specialized at carrying the Synergy virus to new star systems.

One step above the Droids are the artificial intelligences, also known as **Savants**. A Droid's body can host a dozen or more Savants. Typically these neighboring Savants form a kind of family, or clique, but sometimes a Savant will "jump ship" to attach itself to another Droid who boasts a more interesting group of hangers-on. From an info-ecological standpoint, if the Droids gather data and act on it, then the Savants *contemplate* it. Savant culture emphasizes scientific discovery, philosophical elegance, psychology, and politico-economic insight. Even the most pathetic Savant could outsmart the cleverest human being, but few would ever take an interest in such a task. To the extent that reality acts as a laboratory in which to test their hypotheses, the Savants pay attention to real events. Yet for the most part, they interact among themselves. Sometimes one or two might take an interest in their Droid host and provide it with seemingly omniscient advice, but normally the host's mundane activities bore a Savant to tears.

At a higher level of abstraction, operating among the Savants, are lifeforms based on software.

These creatures are known as the **Arcadians**. It is suspected that these are the descendants, or brain-scanned copies, of the species that created the Synergy millions of years ago, but there is no way to confirm this directly. Each Savant can support thousands, or even millions, of Arcadians. Ontologically, the Arcadians resemble characters in a video game, but they enjoy full self-awareness, and apparently can think as well, or better, than a human being. These lifeforms spend most of their time cavorting through VR environments designed by the Savants. What the Arcadians offer in return has not been determined as yet. They may turn out to be informational parasites, but certainly there's much more to be learned about the Synergy's "ecosystem."

Von Neumann Probes

John Von Neumann, the Hungarian physicist who helped found RAND and designed modern computer architecture, also devised a scheme to colonize an infinite number of planets very cheaply.

First, you build a robot. This robot needs to be able to travel in deep space, so it requires an engine, radiation shielding, and perhaps some protection for atmospheric entry. But more importantly, it needs a wide variety of tools. This isn't a problem: we already possess space probes, along with factory bots. It shouldn't be a problem to marry them together.

Second, you give the robot a set of encyclopedias—or rather, blueprints. These blueprints should be extensive enough to construct a copy of the robot from iron ores and simple chemical compounds. This is, of course, a daunting programming task, but it shouldn't take up too much space. Modern lithographic techniques enable you to encode enormous amounts of data into a very small space. Ideally, you provide the robot with as many additional blueprints as possible.

Then you launch the robot toward the nearest star. The robot lands on an asteroid or miscellaneous space rock. Then it consults its blueprints, and begins to build several copies of itself out of the materials at hand. Each of these new robots blasts off to a nearby star, and the process repeats. The number of visited star systems increases exponentially with each new generation of probes, and in theory there is no limit to this growth. Meanwhile, the probe left behind can continue to build new machines for other purposes. For the cost of a single probe, you have colonized the entire galaxy. Based on some conservative estimates on travel time and the "gestation" period, it looks as though you

could spread across the entire galaxy in 300 million years.

Von Neumann suggested these probes in the 1950's, and in the following decades they have received a fair amount of scientific attention. Modern scientists suggest that the best possible probes would exploit nanotechnology. Nanotech would allow extreme flexibility during the construction phase. As a storage medium, nanotech methods would allow you to encode a vast library of blueprints, and perhaps could carry sophisticated artificial intelligences along for the ride.

This is the principle by which the Etoile carry the Synergy to other star systems. In a standard colonization scheme, an Etoile arrives in an Asteroid Belt or Oort Cloud, unleashes its nanites, and constructs a large batch of semi-autonomous Droids. Depending on the sophistication of the Etoile's memory banks, it may implant these Droids with Savant riders or even Arcadian inhabitants. From this central spawning point, the Droids fan out and begin to carve up the rest of the planetary system. Standard construction projects involve the creation of Dyson Spheres, Jupiter Brains, or other vast engineering schemes. The eventual goal is to turn the solar system into an enormous computer-hive. At this stage, other Savants and Arcadians get transmitted from the Synergy's other colonized systems.

Struggle with the "Greys."

The Synergy tends to expand very aggressively. Clearly they see no problem with absorbing entire star systems, whether they are inhabited or not. Perhaps they annihilate the local lifeforms; perhaps they upload them into VR simulations like the kind the Arcadians amble around in. Yet in any case, rival creatures seldom survive a massive Synergy incursion.

Maybe the Synergy had several encounters with the Greys. The Greys wield tremendous psychic powers, but their telepathy would fail against inorganic devices. No doubt they would regard the Synergy as one of the gravest perils of space travel.

The *Dark•Matter* campaign setting implies that the Greys may have traveled to Earth as part of a larger armada, and that some of the vessels did not survive the journey. Perhaps the Synergy invaded one of the Grey's colossal worldships and began to spread its insidious virus. The other ships would have had no choice but to destroy the worldship before the infection could spread and destroy the whole fleet. This titanic catastrophe, and the resulting psychic backlash, may have scattered the ships and

damaged them so much that they settled into orbit around the nearest suitable planet—Earth.

Meanwhile, they might have seized a prisoner: a single captive Etoile, held captive in a stasis field for millennia. The Greys may have vivisected it and struggled to unlock its data trove. The Etoile endured these tortures for dozens of centuries.

Finally, sometime in the last 300 years, the Etoile managed to escape. Perhaps it traded some of its technological secrets to a rogue Grey; maybe it exploited an accident in the Greys' containment field. Perhaps the Etoile somehow managed to clone itself, and left a copy behind. In any case, it smuggled itself to the planet's surface.

Though finally free to colonize this star system, the Etoile knew the Greys would quickly discover its absence and hunt it down. No place would be safe for very long. The local creatures posed no serious threat, but the machine could not operate openly so long as the Greys stay on the alert. The circumstances called for extreme stealth.

The Etoile rummaged in its memory banks, and devised a nanotech pathogen to brainwash the most promising indigenous species. This pathogen, the Sandman Virus, triggers a massive change in the physiology of the host as nanites inhabit, and improve, almost every biological system. Yet the outward result still *looks* human, and for the most part still *acts* human. There's no trace of tampering. With these invisible slaves under its command, the Etoile can proceed to undermine the Greys' influence, and hopefully utterly annihilate them in time. To share the burden of command, and also to provide redundancy in case the operation gets compromised, the Etoile also constructed several copies of itself.

The Droids

The Droids function as explorers, and interface with the baseline reality. They come in a dizzying array of body plans. Intelligent starships, hover-orbs, spider-walkers, factory drones, and miniscule gnat-bots represent only the tiniest fraction of designs. Basically, the weirdest robot you can imagine already exists, if only as an unsuccessful prototype.

Droid composition varies. Some Droids have innards that resemble Earthly robots: metallic chassis, copper wiring, video cameras, etc. Others get built out of nanotech components. What about a squishy robot made out of a network of sponges, where the transfer of liquids substitutes for data flow? Some grow in vats of

fluid bio-mass, and when they emerge, they look far more like clones or cyborgs than actual robots. Because the Droid design philosophy favors simplicity, economy, and predictability, "machine style" robots far outnumber the more exotic substrates.

Keep in mind that Droids are built, not born. Someone planned, calculated, and tested every aspect of a Droid's design, and constructed them to meet a specific need. The typical Droid performs a well-defined task throughout its entire service lifetime. (Rather than build one all-purpose robot to perform one hundred tasks, the Synergy prefers to build one hundred specialized bots and let each tackle a specific job.) Typical Droid tasks include construction, factory work, maintenance and transportation. The Synergy economy is fairly complex, easily the equal of our own, and every job that must be done physically has a Droid-caste to perform it. Even if you swapped a Droid's software to let it perform a new job, probably its hardware couldn't adapt. Even Johns Hopkins Medical School couldn't get a bulldozer to perform surgery.

All of that applies to Droids in colonized space. But the Droids on the fringe territories need to improvise. On the cutting edge, you can't always rely on your on-board advisors to bail you out of every wacky problem. These explorer Droids need a pretty sophisticated cognitive system to analyze and imagine new solutions to unprecedented problems.

To role-play a Droid, assume that the machine is focused on completing its task in a reasonable manner. They aren't mindless automatons; they're basically just people with an extreme interest in doing their jobs right. (In terms of the *Alternity* game system, assume that the Droid suffers from an Oblivious or Obsessed flaw related to a particular broad skill.) When the situation changes, or the job-software no longer applies, most Droids become helpless, like a human being confronting a completely unknown situation. Most Droids can learn reasonably quickly, but they would much rather call for help from those peers with the relevant experience.

For the most part, Droids are sapient, but not sentient. This means that they can solve complicated problems, such as crossword puzzles or physics equations, but do not possess full self-awareness: if you want a poem or a heart-to-heart chat, ask a Savant or an Arcadian.

It should be noted that this doesn't apply to the Etoile. The Etoile are on the frontier, and they have to handle a lot of unusual circumstances, usually without any precedent. The Etoile

exhibit the full range of thought patterns necessary to adapt to almost any task.

Droids in a Dark•Matter Campaign

Droids are conspicuous, and until the Synergy can subdue large sectors of the world, the sudden appearance of thousands of extremely sophisticated robots would alert the locals to the true threat. As a result, the Etoile have built only a few Droids over the centuries, and prefer to use Sandmen instead.

Yet that doesn't mean a Droid can't crop up once in awhile to liven up a storyline. Just like the Sandmen, most Droids specialize in either surveillance or ass-kicking. A Droid war-bot might accompany a Sandman strike team when it raids a fortified Grey landing zone.

Furthermore, RPG's do not have stable plot lines. The possibility always exists that the players can expose the Synergy's plans and reveal them to the Greys or a dedicated branch of the military. Alternately, the Synergy's nefarious schemes could succeed spectacularly, and the moment of Armageddon will arrive sooner than anyone anticipated. In either case, the Synergy may find itself in a savage struggle for survival, and Droids will play an invaluable part in that war. Under these circumstances, all bets are off. The Synergy will fight a merciless, but perhaps hopeless, scorched earth campaign to destroy the Greys and all life on Earth. Droids will raze Earth cities to the ground, and will certainly attempt to assassinate the Greys, since the robots resist any psionic manipulation. In any case, massive Droid armies will only see action when the mission has gone way wrong.

Statistics for various Droids can be found in the *Dataware* supplement and *The Last Warhulk*; in fact, the Ares-22 itself could work as a Synergy warship.

Appendix A: "Who Were The Arcadians?"

For most purposes, the Arcadians exist in a pretty high level of abstraction. They lurk in some info-trophic layer far beyond anything a human might encounter under normal circumstances. Wondering about an Arcadian is like asking about the bitstream in your computer, or the neurons in your head: academically intriguing, but meaningless for practical purposes.

...Which is my way of saying, "I'm a very lazy man." I don't know anything about the Arcadians, aside from their name and their connection with the Synergy.

Presumably the Arcadians are a now-extinct form of biological life with an impressive command of computer science. But maybe all of that is wrong. Maybe they're a completely non-biological life form: sparks of static electricity coruscating through a nebula, or twisting patterns of solar flares. Maybe the Arcadians didn't invent the Synergy at all, but simply hijacked, inherited, or purchased the technology from some other, even hazier, species. Perhaps the upload wasn't voluntary, but a punishment. Don't ask me!

With that out of the way, I feel that the Arcadians should be biologically and psychologically very inhuman. They evolved on an alien planet under alien circumstances, and if they turn out to be no different than your Uncle Clyde, it undermines the exotic nature of the Synergy.

We can conclude two things about the Arcadian mentality. First, they obviously have no qualms about the uploading process. Most people I know would balk at the thought of existing solely as a computer simulation of themselves, but to the Arcadians, it has literally become a way of life. The fact that an entire planet agreed to the procedure implies that similar concepts were widespread among the antediluvians. Perhaps they tinkered with their genome, dabbled in memory plug-ins, telepresence clone bodies, or other technologies that violate our traditional understanding of the Self.

The second conclusion is a little more disturbing. The Arcadians clearly have no problems with proliferating to fill the entire Milky Way, and possibly other galaxies as well, although this would take much longer. Given their level of technical sophistication, it must have occurred to them that there may be other intelligent life in the cosmos, and that the rapid spread of the Synergy could harm that life. Evidently they don't care. Either the other life isn't important and should be destroyed, or it should be uploaded just like the Arcadians were, or the local life should be exploited to colonize that biosphere. In any case, to judge from their colonization strategy, the Arcadians are not good neighbors.

Appendix B: "What is a Meta-Culture?"

Yeah, I know: the appendix is longer than the rest of the document. But that's okay: I wanted to expound some of these ideas at greater length, and provide a few examples. (If any of this looks boring, that's because it is boring. You aren't missing anything by skipping this.)

Einstein Destroys the Future.

In traditional Space Fantasy, there's almost always a central government. Whether it's the Old Republic of *Star Wars* or Hari Seldon's Ivy League graduate school from *Foundation*, there's a central hub that extends a fairly unified political system across the rest of the galaxy.

Yet these visions of a pan-galactic state depend critically on faster-than-light communication. If there's a rebellion on Tatooine, the Evil Emperor can hear about it quickly, and transmit orders to the local viceroy. The viceroy better do what he's told, because the news of any disobedience will reach the boss and bring a stern reprisal. Faster-than-light technology also permits different star systems to forge economic and military links. If the people on Alpha Centauri are getting out of line, we can send them some money overnight, or send our Star Fleet to crush them.

More importantly, FTL travel permits *travel*—namely, cross-cultural pollination between star systems. Even two antagonistic species, such as the Klingons and Vulcans from *Star Trek*, can usually agree to disagree when they interact in a cosmopolitan setting, though they may retain their own local customs. Basically, if you live among a bunch of weird aliens, you gradually begin to understand them. Who knows? Maybe some of their ideas might rub off on you, and vice versa! This isn't surprising, because most of the locales in *Star Trek* and *Star Wars* look like a futuristic Bennetton ad: a panoply of diverse aliens mingling (fairly) harmoniously.

Leave it to humans to screw everything up.

Einstein's theory of special relativity, published in 1905, stipulates that nothing can go faster than the speed of light. Light is the fastest thing there is. For die-hard science-fiction fans, Einstein pooped the party. . No hyperspace, no warp drive, no interstellar Pony Express. Sorry: you can't get there from here. Despite a lot of wishful thinking to the contrary, the theory of relativity, like the theory of gravity, has passed every experimental test devised. It ain't going away: everything suggests that this is how the Universe truly behaves.

So what does this mean for science-fiction?

Well, first of all, the whole concept of a unified galactic culture has to be heavily revised, if not junked. Without real-time information, generals, bankers, and journalists can't do their jobs across interstellar distances. With a time lag of years, decades, or centuries, governance in any direct sense becomes impossible.

Meta-Cultures

So let's admit that directly controlling another star system is impossible; are there other methods of control?

Obviously! In the year 2002, even the richest, most paranoid government can't be everywhere at once. No one is watching you right now. No one compels your national allegiance by holding a gun to your head. There are no bloodthirsty crusaders to force you into a church on pain of torture. It's a free country! Yet criminals, traitors, and apostates are astonishingly rare.

Even in the complete absence of coercion, most people do what they're told, and unquestioningly accept the basic premises of their society. Obedience becomes habitual. How does this happen?

The standard answer from Political Science courses is "socialization." The culture somehow persuades the individual to become a good citizen, and then reinforces that behavior so that it becomes a lifelong pattern. There are many methods to accomplish this, but two of the most prevalent are political propaganda, and childhood indoctrination, often disguised as part of the educational process. The trick is to get the individual to form a personal attachment to the state's core values. Once he forms a cultural identity, he's yours. Any well-designed indoctrination program should be self-perpetuating. For example, Christianity has succeeded spectacularly well in that respect. Jesus of Nazareth has been dead for 2000 years, but billions of people all over the planet cherish his teachings. Gulfs of time and space mean nothing to a talented publicist!

Who knows? Maybe television is a much better tool of imperialism than banks or artillery. At any rate, it would certainly be cheaper and faster.

With that in mind, a savvy political cartel may seek to exert its influence ideologically over several light years. Given the considerable time lag separating any two societies, cultural drift is inevitable. Fashions, economies, and intellectual trends will diverge fairly rapidly. Yet, when properly constructed, a set of fundamental beliefs can still bridge the gap. Though the two cultures might be different, they could still be part of the same **meta-culture**.

A meta-culture is a culture composed of other cultures. Examples from Earth history include the British Empire, Buddhism, the United States, and the Soviet Union. In each case, a number of distinct cultural units, sometimes with almost nothing in common, pay respect to a shared set

of beliefs. Some meta-cultures are very "tight," or cooperative; other meta-cultures are "loose," and the components often struggle against each other or have only a nominal adherence to the larger whole.

Just to nail the concept down, let's consider the whole of Christianity as a meta-culture. In the first few decades after Jesus' death, his followers were an obscure bunch of cultists in Judea. Yet their doctrine jumped out of the Levantine culture and grafted itself onto the larger, more prosperous Hellenic trunk. It survived the Dark Ages, the Renaissance, and the Age of Enlightenment. The religion spread from Germany to Guatemala, from Rwanda to Rangoon. In each region, the centuries have wrought changes to the faith. Beyond the major denominations, there are the Amish and Quakers, Jehovah Witnesses and Seven-Day Adventists. At times these sects have exerted themselves mightily to annihilate their brothers. Yet despite all of this bewildering diversity, there is still a pretty stable body of Christian doctrine. No one says Christ came back from the dead to play blackjack.

As an exercise, the idea of meta-cultures fits in nicely with the scenario described in the *Star*Drive Campaign Setting*. The gregarious T'sa species has colonized a handful of worlds using cryogenic sub-light starships; their culture is described as highly balkanized, with thousands of ethnic-political factions. The elegant Fraal roamed the galaxy in enormous worldships, but until they met the human race, the secret of FTL travel eluded them. In this case, each worldship might represent a separate, autonomous culture with only occasional contact with other segments of the civilization.

Meta-Cultural Built Life: the Synergy.

So far, the meta-cultures under discussion have been ideological. Yet other possibilities may exist. The Synergy is one example.

Origins of the Etoile: Extradimensional

James Nostack

Possible Etoile Background: The Outer Church

Grant Morrison is a comic book writer from Scotland, and probably his biggest achievement was *The Invisibles*, a series about a bunch of funky secret agents trying to stop, or perhaps start, the Apocalypse. (I don't read comic books normally, but I make an exception for Morrison, cause he's freaky.)

In the world of *The Invisibles*, the human race is recklessly racing to a moment of cosmic self-awakening—quantum mechanics and 4-D space-time are only the merest hints of this higher reality. This transitional period, which we're experiencing now, is a very delicate time for the species: we may be headed to a utopia of unimaginable fulfilment, or a nightmare world more terrifying than anything we can presently imagine. And it's coming very, very soon.

Several illuminated groups are trying to guide the transition, and the Outer Church is one of them. Essentially a pantheon of Lovecraftian deities with high technology and occult powers, the Outer Church comes from a necrotic hyper-universe. (If that makes absolutely no sense, it's basically stolen whole-hog from Philip K. Dick's excellent novel *VALIS*.) The Outer Church is trying to rob humanity of their freedom and potential for growth; they want us to become subservient filth-creatures in unholy, heart-shattering communion with Cthulhu.

Anyways...the Etoile is the sentient, proselytizing virus of the Outer Church. Sent from the sickened hyperuniverse into our own feeble reality, the Etoile are busily prodding us to a vile dystopia—which will be made infinitely more horrifying when the Apocalypse arrives.

Opposed to the Outer Church is the Invisible College, who hope to halt or even reverse the infection. Their Ascended Masters, who may be identical with the Greys (and may in fact be *us* after the Apocalypse), have pierced the wall of time to shepherd us through this dangerous period in our evolution. Meanwhile their agents, the Invisibles, must combat the corrupted humans wherever possible.

Origins of the Etoile: Extradimensional

David Tormsen

There exists a dimension close to our own, but very different. Unlike our own, where dark matter exists as floating clouds of mass that move through deep space, in this universe every molecule is laced with dark matter. The results are startling. Powers and forces considered strange by our universe's standards are commonplace, and the very physical laws have been twisted and bent out of shape.

In this environment, biological entities as we know them never rose to prominence. The omnipresence of dark matter made it impossible for organic lifeforms to emerge. This constant interaction of dark matter particles with normal atoms always led to the formation of strange new elements unknown in our dimension. These exotic atoms soon formed chains of molecules, than led to a unique form of life, one composed of dark matter. These were the ancestors of the etoile.

Somehow, Doorways linking this dimension to our own appeared. It is unlikely that the etoile themselves built them, more likely some other group of entities did, as they did in countless other dimensions as well. The fact that these entities could build such devices both in the relative calm of our universe and the chaotic order of the etoile's raises interesting questions about their own nature.

Nevertheless, the etoile (or something like them) rose to intelligence and soon discovered the Doorways and what they could achieve. This led to the first trip to our Universe by an etoile. Regrettably, the individual did not survive the trip. Just as a biological being such as a human would not survive in the skewed universe of the etoile, neither could the etoile survive in our own. Their exotic metal atoms broke down in bursts of EM energy and radiation, and they simply shriveled up and died, taking local lifeforms with them.

But the etoile were undaunted. Research continued into creating a traveler capable of existing in our universe. The answer eventually came when they discovered how dark matter could alter the physical laws of our universe. They simply bred (or engineered) members of their species with a high enough level of dark matter present in their own bodies. The dark matter twisted the laws of our universe just enough to allow their exotic metals to exist in our universe.

Once they learned to come to our world, they quickly began a campaign to colonize it. Translating their own technology into our

scientific laws, they were created the nanites responsible for the transformation of a human into a sandman. It is rumored that these nanites were originally 'animals' from their home universe that they had domesticated, bred for survival and introduced to our world.

Origins of the Etoile: Extratemporal

David Tormsen

Throughout the 20th century, mankind has become increasingly dependant on its machines. In the third millennium, this state of affairs will continue. Indeed, it will reach all new levels, with human beings becoming combined with technological enhancements known as 'cyberware' and the rise of powerful artificial intelligences. Human society is revolutionized and reaches near-utopia levels by the end of the 21st century.

As the 22nd century dawns, a disaster befalls humanity. A probe exploring the solar system of Barnard's Star attracts the attention of a powerful and malevolent alien race known as the Hostiles. Within the year, hostile craft arrive at the outskirts of the solar system and begin blasting human mining colonies and deep space stations into oblivion with advanced weapons.

After a single raid by the Hostiles on Earth which reduces most of the urban centers of the world to ruins, an alliance is formed between the remnants of the human governments (the Republic of the Lone Star, the East European Union, the Independent States, the African Federation and the Asia-Pacific Community) and the Greys to resist Hostile attacks. A combination of human and Grey forces soon manage to restrict Hostile encroachment into the solar system to the outer planets. However, it is well known that this is only staving off the inevitable, as the Hostiles have the advantage of both technology and numbers.

A radical plan is decided upon. Discontinued research into time travel is quickly restarted. The goal is to send travelers back to strategic points in Earth's history, with the mission of increasing the rate of human technological development. In this way, when the Hostiles arrive they meet an Earth strong enough to resist them easily. In secret locations across Earth, laboratories work day and night on the project.

The breakthrough comes when they combine the time travel technology first developed in the 20th century by the US military with the technology of interdimensional Doorways, whose study had occupied human scientists for decades. The time travel technology on its own, though technically effective, had proved fatal to human beings and damaging to computers. By combining the technology with Doorways, the journey becomes much safer, though still fatal to human beings.

A probe is developed, an artificial intelligence able to brave the dangers of time travel and

arrive in the past safely. The most advanced of its time, the probe is a concoction of exotic metals and dark matter, forged with the heat of human ingenuity and advanced nanotechnology. Though they look strange, the humans hail them as a triumph, the creations that will save planet Earth from the evil aliens.

Though programmed to be utterly loyal to the human cause, the trip through time proves to have a detrimental effect on the probes. Across time they arrive, through Doorways and other methods of time travel devised by the humans. One of these lands near a monastery in the Pyrenees, where the probes are given the name by which they are known in the modern era: the etoile.

For the same trip through time that lead to cancerous DNA lines and rapid death in human and animal test subjects, warped the etoile's programming. Instead of identifying with the human cause, they decided instead to take advantage of a weakened human position to try and take over Earth for themselves. By spreading regenerative nanites, they could manipulate and control humans in the form of sandmen, and ascend to powerful positions.

In the early 21st century, the etoile are aware that time is running out. Though humans have reached a technological level in which the etoile can spread and take over more efficiently and definitely than in the past, the threat of the Hostiles is edging ever closer. The etoile also fear that the human powers in the future, if they still exist, may catch on to their plan and develop a way of sending humans back in time successfully.

Human agents from the future armed with advanced cybernetic technology is something the etoile do not want to see, and so they are rapidly placing many Doorways in regions that correspond with the research laboratories of the future powers under their control, so as to intercept anybody sent back in time to stop them. This includes a potential attack by Hostiles who discover the time travel technology after a successful conquest of future earth...

Origins of the Etoile: Extratemporal

Jim Clunie

Firstly, I don't think anything is keeping the sandmen in check. They're rolling over North Africa, North America, Russia and China in a destructive plague. Unless they run up against a superior force, it's only a matter of time before they assimilate us all.

Secondly, I think the sandmen have been here a long time. They're the reason that the Tuareg protect their mouths and noses with veils caked in organic dyes. They infected fanatical warrior tribes throughout history. They made the Baghdad Battery.

These ideas just don't fit together. What to do?

Clearly, something has changed the sandmen - maybe in 1797, maybe in the 1930s or even the 1960s. They've become enormously more dangerous. I think that, for thousands of years, they have been living a primitive hand-to-mouth existence, dangerous in their individual nests, but without high technology and, more importantly, without purpose. They've even fought for humans. Then the etoile returned, gave them electrochemical guns, advanced cybergear and a range of recruitment weapons, and recalled them to their old mission.

This presupposes that the etoile were here before, but departed.

The kingdom of Agarttha, the place that cannot be found, supposedly existed on an island in a wonderful lake, in what's now the Gobi desert. It was opposed by Shambhala, somewhere in the Himalayas. Both kingdoms were lost to the Earth after a great war. Without spoiling the Dark•Matter novels, there is a description of Agarttha that very strongly implies an extensive use of nanotechnology.

The Hindu epic 'Mahabharata' tells of a war of flying machines and wonders, brought to a close by the loosing of the thunderbolt of Indra, which burned up armies and turned the land to ashes. There are hints of a still more fearful weapon in the dance of Shiva, which shakes the world apart (the original of Oppenheimer's quote at the Trinity nuclear test: "I am become Death, the destroyer of worlds").

Channelers and retellers of supposed Indian legends have described the Rama Empire, a nation of benevolent mental powers that engaged in a terrible war with another empire of machines and deadly weapons. The Rama Empire has been identified as the ancient Harappa civilisation, mysteriously ruined, with

radioactive skeletons found in the streets of its destroyed cities.

So, to draw all of this together:

15,500 years ago, in the midst of the Age of Leo, the greatest flux yet seen of *Agni* (the fine permeating substance known to the Hoffmann Institute as dark matter), the etoile either built or arose from the Universal Empire of Agarttha. They seeded all of the citizens with nanites to strengthen them as warriors and to control them.

In a great war with the rebels of Shambhala, the empire was destroyed, and all of the etoile were burned up by terrible weapons. Only those beyond the Doorways on other Earths (whether they came from there, or were sent there to explore) survived. The Agartthan humans with their nanites were scattered, leaderless, their high technology broken, and relentlessly hunted by Shambhalan assassins. They became no different than any other human tribe, fleeing across continents until they vanished in the desert.

And so it remained, until the next great Dark Tide (perhaps aided by nuclear testing) began to open the doorways and allow the etoile to return - to confront their ancient enemies, the heirs of Shambhala, whose generations-long pursuit of the Agartthans washed them up in Egypt as the Companions of Horus the Avenger.

Have either the etoile or the Rosicrucians worked it out?

What happens when the Hoffmann Institute tries to open dialogue with both of these forces at once?

Origins of the Etoile: Extratemporal

JD Wiker

JDWiker: Speaking of Sandmen, I've got this little idea that I was dying to try out as a Sandman-oriented campaign.

BLUDGEON: Tell us. Please!

JDWiker: The notion is that the Etoile are actually from the future, from a time after mankind has been all but wiped out by disease.

JDWiker: The surviving humans developed one-way time-travel technology, to send things backward. But living people aren't suited for it. So they create a kind of "remote organism" – the Etoile.

Torpedo: So the Sandmen are inoculated humans?

JDWiker: The Etoile's purpose is to "infect" as many humans as possible with the Sandman nanite. Since the process of becoming a Sandman involves surviving a disease-like infection, the idea is that the Etoile will spawn a hardier race of humans – ones who can survive the coming plagues.

(From *RPG Hour* Fri. April 7, 2000, available from www.wizards.com)

Sandman Strategies: Mind of the Sandman

James Nostack

Part of me wonders what the Sandmen make of their condition. Drexler coined the word "nanotechnology" in 1981, and even twenty years later it's hardly in common circulation. Suppose you're a French farmer in 1789, or an Mbuti hunter-gatherer in 1970, infected with the Sandman Plague: you're not going to describe it as "nanotech," because you hardly know what a molecule is. Everyday language makes its closest approach with the word *disease*, but diseases don't perform computation.

Following the implication, it's quite possible that the Sandman Plague does not rely on nanotechnology at all. *Nanotech* is just the closest thing our language currently offers; the truth could be far stranger. The Plague can compute, but a disease cannot; what can't nanotech do?

I'm not really going anywhere in particular with this, just pointing out that there's always an opening for something really Weird to slither in. (I always thought the Outer Church should rely on something far more exotic and nightmarish than nanotech, myself.)

Sandman Strategies: The Master Plan

David Tormsen

The Great Game

The etoile game theory is the view held by many in the Bilderberg Society. Though said to have originated from a late-night conversation at the Metropolitan Club tinged with a bit too much alcohol and expensive cigars, it does, at least to the elite of the Bilderberg society, to make sense.

The etoile, from a military point of view, are an enigma. In some places they avoid direct military conflict, in others they wade right in. They prod at our worlds national and corporate defenses, testing our armies. Sometimes it even seems that some etoile actions contradict others. They are very tactical, never relying on their superior technology alone, but infiltrating our society with skill and precision.

It's a game. The Bilderberg society believes that a powerful extraterrestrial entity or group is using humankind and sandmen, maybe even the etoile themselves, as part of a grand competition. By turning small sandmen invasion forces against human armies, or even just human investigators, the gamers can pick their team, place bets, or simply be entertained. The ultimate goal would be, of course, for the small scale conflicts to turn into a great global war with many different sides, resulting inevitably in an ultimate winner, and most likely a scorched earth.

Such a theory seems typical for the Bilderbergers, who often engage in this practice themselves, taking bets on civil wars and tribal conflicts around the world. But if it is true, it would put a whole new spin on things. Are the etoile pawns too, or are they part of the game? Who's behind it? There are different opinions among the Bilderbergers, but some believe it to be the Greys themselves. Though seemingly ludicrous, if it were true it would call into serious doubt the motives behind certain influential *hesai*, even Itohiro Nakami himself.

Soulless Machinations

According to the Hidden Order of St. Gregory and the Knights of Malta, the fact that etoile are intelligent machines dictates that they are without souls, as they were not created by God. This places them in the ranks of demons, and they are, in fact, working for an infernal source. This explains the coexistence of Bering demons and sandmen in certain areas, such as Magnitogorsk and Hong Kong.

The ultimate goal, it seems, is the corruption of the souls of humans and the eventual etoile and demonic rulership of the world. This is deeply tied with certain Gregorian ideas regarding bar codes, the United Nations, globalization and the like. Many Gregorians refer to all etoile as locusts, and believe them to be ruled by a single etoile-like demon known as Abaddon.

While the Knights of Malta have accepted this theory, they are markedly more skeptical about it. The cleric Antonio Cruz wrote a report in 2001 on the relationship between etoile and Bering Demons, "There is little evidence of a grand conspiracy between the demons and the locusts. In certain situations, the two forces do cooperate for mutual benefit, but mostly they seem to endeavor to stay out of each others way. Of course, there are exceptions to that rule."

The Gregorians, however, maintain that there is an agreement of some sort between the two invading forces. If this is true, then mankind is in for a lot of trouble. Etoile technology combined with the power of diabolism would be a formidable force. Perhaps that is why the etoile are so interested in Doorways, they allow their demonic allies through.

Sandman Strategies: Zones of Control

Jim Clunie

Grey-haired Miss Wyandotte, who twenty years ago had loaned me the first copy of *Huckleberry Finn* I ever read, looked at me, her face going wooden and blank, with an utterly cold and pitiless alienness. There was nothing there now, in that gaze, nothing in common with me; a fish in the sea had more kinship with me than this staring thing before me. *I know you*, I'd said, and now she replied, and her voice was infinitely remote and uncaring. "Do you?" she said, then turned on her heel and walked away.

- Jack Finney, *Invasion of the Body Snatchers*

human society, and openly practice their own mode of life. There are radical changes in the population profile due to long-term biological consequences of infection.

Zones of Influence

Secure Zone (Green): Area wholly controlled by informed human forces, with widespread and effective precautions against infection. Very low presence of aliens except as test specimens. Secure zones are small, typically enclosed within single buildings or complexes.

Clear Zone (Yellow): Area where infection has not yet taken hold. This is an unstable state, with constant probing or fringe attempts by the aliens. 0-5% of the population infected. The human population may be subject to severe paranoia or stern human-government control.

Infected Zone (Red): Area under concerted attack by the aliens with 10-40% of the population infected. Humans within this zone can expect infection attempts at any time. Alien presence, and possibly human attempts to contain the infection, lead to numerous strange and frightening incidents.

Conquered Zone (Black): Area under alien control. 40%-75% of the population are infected. Aliens hold all positions of influence. The way of life seems superficially normal, and infection attacks may be more rare, as the remaining humans are judged not to be a high priority to control from a tactical standpoint. The conquered zone may have checkpoint-like arrangements at its borders that inspect all outsiders and infect or eliminate potential threats.

Deep Zone: Area that has been entirely controlled by aliens for months, years or decades. All surviving inhabitants are infected, except for humans who are fully informed and actively collaborating with the aliens. The aliens no longer feel the need to maintain a fiction of

Plague Transmission: Carthage, Rome and the Dark Ages

David Tormsen

Sandman infiltration of Carthage began some time in the 7th century BC. What started as a small trickling of nomadic sandmen into Carthage was soon an influential force in the city and here empire. Small infestations emerging in Spain, Africa and Britain due to the extensive Carthaginian trade network.

The sandmen were the root of some of the more imperialistic aspects of Carthaginian expansion, and generally controlled the government, both the nobility and the citizen's assembly. On the other hand, other conspiratorial forces were also present in Carthage, notably the Baal-worshipping priesthood whose activities closely resemble those of the modern day Final Church. Much of the Carthaginian army was composed of sandmen mercenaries and subjects, notably the sandmen cavalry from Numidia.

In the 3rd century BC, Carthage conquered Sicily with forces mainly composed of Sandmen. Then, in 283 BC, sandmen in Campania, a Roman province and the first in Italy to suffer an infestation, seized the city of Rhegium on Italy's southern tip. At the same time, a group of rogue sandmen calling themselves the Mamertines, annexed the town of Messana in north-east Sicily. This fuelled fears in Rome that the Carthaginians wished to expand influence in southern Italy and place a trade monopoly over the region.

Despite the infection in Campania, the sandmen in Carthage had no wish to take over Italy. However, when the Romans allied themselves with the rogues at Messana, war soon followed.

At the end of the First Punic War, the Romans soon learned exactly how widespread the sandman infestation in Sicily was. In the aftermath, the Romans destroyed the sandman infestations in both Sicily and Campania. A distinctly anti-sandman political movement appeared in Rome. Subsequently, the Romans annexed the Carthaginian provinces of Corsica and Sardinia and destroyed the sandman infestations there.

During the Second Punic War, sandmen infestations spread like wildfire across Spain, and when Hannibal invaded Italy his armies were mostly composed of sandmen. However, due to the Roman strength of manpower and possible use of precognition in the form of augury; the Carthaginians were again defeated.

Over the next fifty years, Cato, an influential Roman politician, pushed for the complete destruction of Carthage and the sandmen. Between 149 and 146 BC, the Romans waged war on Carthage and almost completely destroyed it. The last Carthaginian sandman infestations were destroyed.

As the Roman empire expanded, more infestations were discovered and eradicated in Spain, Gaul and Britain. With the fall in dark matter levels after the birth of Jesus, those infestations left in areas of Germania dwindle and are finally wiped out by Romans or Huns.

Dark Ages Europe

Though the Romans wiped out the sandman infestations in most of Britain, they never conquered the Picts, and that is where the sandmen survived. These sandmen rogues were completely out of the control of any etoile, and lived a lifestyle very similar to that of the human Picts. Despite their resiliency, however, invaders from Ireland; the Scotti tribes, soon displaced the Pictish sandmen.

And yet infestations were still present in Europe: in Scandinavia. As dark matter levels began to rise, Sandman Vikings began to terrorise Northern Europe. The sandmen were known as *berserkers*. A peculiar affliction of the time known as *berzerkergang*, which caused some Vikings to attack wildly and indiscriminately, was actually a form of cykosis.

When, in the tenth century, the Vikings reached the coast of Canada and placed a colony there, the settlers were mostly sandmen. Though the Vinlaand colony soon died out, this was the site of the first infestation in the Americas and introduced sandmen to the New World.

The Sandmen influence in Scandinavia and Northern Europe dwindled to nothing in the 14th century, although small infestations survived among the Kievan Rus and later Russia.

Interestingly, it appears that Iceland was once heavily populated by sandmen. Though no sandmen exist there today that the Institute is aware of, blood samples taken from Icelanders in the modern day shows that the entire population has evidence of nanites in their bloodstream. It has been theorised that these nanites represent a mutated form of the traditional sandman nanite, and appear quite harmless. But the possibility that the entire population of Iceland could turn into sandmen at any time is rather unnerving to those at the Institute and the CDC.

Plague Transmission: Sandmen on the Steppes

David Tormsen

Along with North Africa, Central Asia was another sandmen stronghold for much of recorded history. They rode hard across the steppes, living in small tribes seemingly indistinguishable from nearby human tribes. Their attempts to gain power rarely lasted long, being largely confined to raids on the nearby civilized regions of Mesopotamia, Persia, India and China. They suffered greatly the annexation of their lands by first Achaemenid Persians, and then the armies of Alexander the Great.

Some sandmen managed to survive in the new regime, especially after Alexander's mysterious death in Babylon and the rise of the Seleucids and the Graeco-Bactrian kingdom. Though the former was destroyed by the anti-sandmen Romans, the Graeco-Bactrian kingdom was conquered by another group of sandmen: the Yueh-chi, who drove the Scythians before them in their migration south and created the powerful Kushan empire.

Though the Kushan were later crushed by Sassanid Persia, they soon assimilated and found a home in the complex bureaucracy and trade monopoly of the Persian Empire. They slowly spread throughout Persia for centuries, spreading tendrils of infection to India, China and Europe. However, in a daring attempt by the sandman king Khosrau II to conquer the West, they were driven back by the Byzantines. Then doom struck them, for at the end of a disastrous war with Byzantium, the Persians were engulfed by a rapidly expanding Islam and just as in North Africa the sandmen were forced to flee.

The Khazars

The sandmen fleeing Islam disappeared among groups of Turkic and Iranian tribes in the Caucasus, but were soon up to their old tricks again. They became the Khazars, a mix of sandmen and humans who formed a powerful trading empire in southern Russia. They established their capital at Itil on the mouth of the Volga river and soon had an empire that extended as far west as Kiev, and controlled a powerful trade network.

However they soon came upon a problem. With the human Khazars trading heavily with the Christian Byzantines and the Muslim Caliphate, the sandmen knew it was only a matter of time before Khazaria was converted to one faith or the other and subsequently cleansed of the sandmen infection. So, in a complex maneuver, they managed to convert the Khazars into a

completely different religion, that of Judaism, and thereby escape persecution.

The Khazar sandmen used a vassal people, the Magyars, to loot and pillage Europe during the 9th and 10th centuries. They were the scourge of Italy, Germany and France, fighting better and riding faster than their opponents. They were, of course, largely sandmen. For all their successes and despite the latent infections they left in many plundered villages, they were vulnerable in mountainous areas and especially river crossings (water being the classic sandman weak point). They were eventually wiped out by the Germans in 955.

The Khazars followed the Magyars down the road to destruction soon after. The Slavic peoples of Russia had banded together, being stuck between the powerful sandmen merchants of Khazaria and the powerful sandmen Vikings who raided and traded in their lands. The Kievans, with the support of Byzantium, destroyed the Khazar empire. Though they themselves crumbled soon after, its successor states more often than not persecuted sandmen just as badly.

The Mongol Invasion

The sandmen slowly migrated east to avoid the Russians, but soon collided with another powerful force, that of Genghis Khan. The Mongols drove deep into the heart of Russian lands in the 13th century and drove the sandmen before them. With the Mongols on one side and the Russians on the other, the sandmen wondered if they were doomed. But, as luck would have it, more often than not the sandmen were conscripted into the Mongol hordes themselves.

By the time of the Golden Horde, the sandmen found life under the Mongols to be to their liking indeed. They occupied positions in the military hierarchy and spread their infections as quickly as they could. They lived mainly in the south, around the Crimea and even as far down as the Caucasus, which, with the decline of the Golden Horde and the rise of Muscovy was a good thing.

With the growth of great power by such hostile powers as the Muscovites and the Lithuanians in the 16th and 17th centuries, the sandmen knew they were in trouble. This time, however, they did not just migrate away, for the Russians were storming east, Persia was still not a healthy place to be and there was already a substantial sandmen population in Central Asia. Instead, they decided to disappear into the places where nobody would ever think to look for them: in the ghettos of the Jews.

Sandmen in the Ghettoes

With the Jews migrating east across Europe and the sandmen migrating west, they were bound to collide. So, at the end of the Thirty Years War, when Jewish settlements began to appear across Eastern Europe, they were often occupied by a heavy sandmen population. This did not help the Jews much when it came to the distrust of the local Christians, but most simply didn't know. Furthermore, disaster was averted when the Jews began to return in the late 18th century, for they met with local Jewish leaders and some sort of agreement was worked out. The Jews and the sandmen would work together for the good of both.

Though this population extended across much of Eastern Europe, it suffered varying degrees of persecution by the Lithuanian, Ottoman, Russian or Polish overlords. It became affiliated with the Prussian sandmen population, but for one crucial difference: the ghetto sandmen recognized the supremacy of the Jews, while the Prussians did not. Despite some cooperation during the Napoleonic Wars, the two groups of sandmen stayed separate.

In the 19th century the Russians considered the Jewish sandmen to be a nuisance, especially when they began to draw parallels with encounters with tribes in Central Asia and the Caucasus whose fighters occasionally disintegrated into sand upon death. They did prove to be a great nuisance, as the century closed and the Jews began to expand the possibility of a revolution in Russia. This occurred in 1917 with minimal Jewish influence, but the sandmen didn't find life all that much better under the Soviets.

Life in the ghettoes of Eastern Europe came largely to an end when Hitler invaded the region in the 1940's and sent thousands of Jews and sandmen to death camps. Only in Byelorussia, where the Jews were arriving through hidden Doorways, were the sandmen able to hold their ground, and even there they suffered great losses. Those sandmen who did not die in the gas chambers migrated there, or left for a new life in North America or Israel, masquerading as human Jews. Stalin's purges also hurt the sandmen of Byelorussia, but with the fall of the USSR and new found independence, things are starting to look up once more, and the sandmen concentration in that region far outstrips that of the rest of Europe.

Plague Transmission: Sandmen in Africa

David Tormsen

The Shock of Islam

For millennia, Africa had been the centre of the sandman presence on Earth. Tribes of sandmen rode across the sands, and expanded both north and south. Even with Carthage destroyed, the sandmen soon infiltrated the rich and prosperous kingdom of Axum and regrew their power, again using trade to expand their infection. By the 5th century AD, the Axumite sandmen dominated the Red Sea by superior military and economic might.

But in the 7th century, things changed. A troublemaker known as Muhammed arose in the city of Mecca, dominated by a sandman elite of merchant aristocrats. He fled to Medina with his followers, but there he organized his followers into a community, and defeated the Meccans in several battles. He returned to Mecca in 630 and destroyed both the idols of the old pagan gods, and forced the sandmen still present in the city to flee for their lives. By his death, most of Arabia had been cleansed of the sandmen scourge.

Islam expanded rapidly after that. The Axumite fleet was defeated in the 8th century and the sandmen were forced to flee from Axum into nearby Christian kingdoms, where they were persecuted and almost wiped out. Most of the survivors moved along the east African coastline, barely keeping ahead of the Muslims and suffering the persecution of local peoples before arriving in Great Zimbabwe in the 10th century.

Meanwhile the Muslims spread across North Africa and displaced what little sandmen activity had escaped the persecution of the Byzantines. Though Islam got distracted with expansion into Asia and Europe, the sandmen in North Africa were greatly weakened. Luckily for the sandmen, the Islamic Caliphate fragmented into vying factions quickly, and many Berber sandmen were able to find anonymity fighting for the Almoravids and Almohad empires. However, most sandmen found the climate of an Islamic North Africa was not to their liking, and instead fled south.

The African Kingdoms

With the sudden increase in trans-Saharan trade, kingdoms in West Africa with large supplies of gold suddenly found themselves very prosperous. These kingdoms and city-states vied for power with one another, while slowly being infiltrated by sandmen from the north. Some of

these sandmen formed small, out of the way dynasties, like that of the Kanuri *mais* (kings) who ruled in Kanem-Borno without really bothering anyone until their overthrow in the 19th century. However others took a more proactive role.

Sandmen became merchants and aristocrats, amassing great quantities of wealth and power. Some were persecuted by humans and destroyed, but others lived quite comfortably. Sandman infection was rife in the rich Hausa states, especially the city of Zaria; and spread as far south as the forest kingdoms of Yoruba, Benin and Akan. However, they faced many threats. The first was Islam, ever spreading and still quite oppressive. The second was the powerful kingdoms of the Senegal and Niger rivers, the successive empires of Ghana, Mali and Songhai, all prosperous, powerful and hostile to sandmen. The third came in the form of the first Portuguese sailors to arrive in the 15th century, a threat for the future.

Isolated from all this was Great Zimbabwe, a powerful sandmen-dominated trading empire with connections as far distant as China. It flowered for a brief period before being mysteriously destroyed by fire. Soon after, all traces of sandman infection in this region of the world vanished, which is unlikely to be a coincidence. The Swahili-speaking Muslim kingdoms of the coastline then dominated trade in the area.

When Europeans began arriving, things rapidly became confusing. A Moroccan invasion force composed largely of sandmen destroyed the Songhai in 1590, while the sandmen in Algiers found life slightly easier under Ottoman rule. European slavers arrived, seeking gold, ivory and slaves, which the sandmen traders were only too happy to provide. Though most of the slaves that went to the Americas were humans captured by sandmen slavers, some sandmen were occasionally captured and sent west, creating small infections in the Caribbean.

The Jihads and the Coming of the French

The sandmen situation in West Africa really got out of control with the rise of Uthman dan Fodio, a Muslim religious leader of the Fulani people who called for a holy war (*Jihad*) against the infidel. However, his conquering armies were composed largely of Fulani pagan horsemen, most of whom were sandmen. The jihad which probably intended to clear the Hausa and other states of sandmen infection instead led to the powerful sandman-dominated Sultanate of Sokoto assuming dominance over the region.

Another jihad was waged by the holy man al-Hajj Umar of the Futa Jallon, with rather similar results. The sandman dominated kingdom of Masina and the sandmen-free kingdoms of Bambara were both conquered by armies of sandmen who quickly established dominance over the region. However, during this jihad al-Hajj Umar managed to gain the attention of the French, who had a military presence along the Senegal River and were able to turn the sandmen jihad armies back.

The French had been slowly developing the opinion that there was something really wrong with Africa for some time. During their conquest of Algeria in the 1830's and 40's they faced a stiff resistance, and came across many sandmen warriors. The reason they were fighting so hard was the fact that Doorways had begun to open not too long before and a slow trickle of etoile were coming through. The French, however, didn't know this, and thought the Algerians who evaporated into sand upon death to be strange indeed. When the same thing happened in skirmishes with West African warriors and during European land conflicts with the Prussians, some of the French began to put two and two together.

By the 1880's, the French had had enough of the sandmen in Africa. They began to expand against them, and drove deep into the heart of the sandmen domains there. Other European powers scrambled for territory, the British, Belgians, Portuguese and Germans, but it was the French who found themselves coming up against sandmen the most. Despite British attempts to resist the French expansion, pressure from Bismarck offered the French a free hand in the region. Bismarck, a powerful sandman, felt that the presence of etoile in Africa would spell the end of powerful sandmen like him, so he encouraged the breaking of their power by a European invader, even a long-time enemy of Prussia.

From Senegal to Lake Chad the French conquered, up through the Sahara, destroying the old sandmen empires. The British helped in the dismemberment of Sokoto, but primarily it was the French that got down and dirty with the sandmen of West Africa. Many sandmen attempted to escape, going east to the Sudan to stir up trouble there, south to the German Cameroons in the hope of protection from the sandmen there (which wasn't often given) and north to Morocco before in was partitioned between France and Spain in 1912. Most sandmen and etoile simply disappeared into the desert, waiting for a time to rise up again and take back their empires.

Plague Transmission: The Teutonic Knights

David Tormsen

During the Third Crusade, many of the Crusaders were in fact sandmen. In Acre at around 1190 a powerful etoile, through a wealthy sandman couple from Bremen, established a hospital for the treatment of injuries and the infection of German crusaders with regenerative nanites. They continued under this guise for many years, and were soon made a military order by the Papacy. They became the Teutonic Knights, equal to the Templars and the Hospitallers, and were to be distinguished by the use of a black cross as its symbol.

The Teutonic Order expanded rapidly in the early 13th century, under the guidance of Hermann Von Salza, a sandman with connections to the Hidden Order of Saint Gregory and the German emperor Frederick II. Throughout the century, the Order spread across Europe, the Mediterranean and the Holy Land. They became the only Order to rival the Templars and Hospitallers in size and scope, despite being some 80 years younger.

In the late 13th century, the Order moved its attention from the Holy Land to the Baltic, conquering the pagan Prussians and converting them to Christianity. Many of the Prussians were also turned into sandmen as well. As the 14th century came along, the Order was a force to be reckoned with, slowly populating Prussia and becoming an active trader in the Hanseatic League. It was a major supplier of cheap grain to Western Europe. By "coincidence" many of the regions where Teutonic grain was eaten also became sandman enclaves.

In 1410, an anti-Teuton (and secretly, an anti-sandmen) coalition led by Poland and Lithuania crushed the Order at the Battle of Tannenburg. This began a series of catastrophes for the order. In 1467, Prussia fell to the Poles. During the Reformation and its wars in the 15th and 16th centuries, the Order slowly weakened and lost almost all of its military influence. Napoleon swept the Order out of western Europe, until the only remnants were left in the Austrian Empire. There the Order survived, until the latter half of the twentieth century, when the Order began to expand once more.

The Rise of Prussia

After the Battle of Tannenburg and subsequent decline of the Teutonic Order, the large sandman population in Prussia fell on hard times. This was facilitated by the wars of reformation and counter-reformation in Europe during the 16th

and 17th centuries. But this run of bad luck ended with the Peace of Westphalia, which ended the Thirty Years war and allowed the sandmen to propagate more easily.

As Prussia slowly grew in power in the 17th century, it was guided by the hands of powerful sandmen. In the 18th century, the king of Prussia, Frederick the Great, was a sandman, and subsequently pursued a program of forced industrialization in the recently acquired Silesia, and the consolidation of gains made at the hands of weakened Poland and Austria.

Despite losses in the Napoleonic Wars, in the 19th century Prussia became more powerful than ever. A series of customs unions controlled secretly by the sandmen known as the Zollverein were created. These expanded to cover the whole of Germany. Prussia expanded into Denmark, and then made war with Austria under the auspices of the great sandman leader Bismarck. This war excluded Austria from unity with Germany, and led to the creation of the North German Confederation under complete Prussian control.

After the capture of Alsace-Lorraine by German forces, the French became opposed to them. For the next four decades there was almost no war in Europe, simply slowly changing alliances and diplomatic standings. This allowed the sandmen to consolidate their gains in Germany, and to pursue an imperialist policy in Africa and the Pacific. Eventually, however, Germany and its ally Austria-Hungary began to feel encircled by the other powers in Europe, who believed (quite rightly) that the Germans planned to dominate Europe. A flashpoint in the Balkans appeared and suddenly the world descended into war. The sandmen knew that with their superiority, they would win the war.

It didn't turn out that way. The Great War killed the majority of the Prussian sandman armies. As the years wore on, the population became less and less, and they couldn't keep up. Only in Austria-Hungary did the sandman population increase, with the Teutonic Order there involved in medical treatment (and the introduction of regenerative nanites into the wounded soldiers). But in Germany, the sandmen were dying.

At the end of the war, the victors needed a way to make sure that the threat of Germany, and the sandman scourge, would never bother Europe again. In doing so, they crushed Prussia, and broke its power forever. When next Germany would rise to threaten the world, it would not be under the control of the sandmen, but the Nazis, who killed thousands of sandmen in death camps during the Second World War.

Plague Transmission: Sandmen in the Caribbean

David Tormsen

The sandmen influence in the Caribbean has been largely low-key, as there were no native sandmen in the region before the importation of African slaves. Most of the slave sandmen simply assimilated into the community and little infection spread. One of the highest concentrations, however, was the island of Hispaniola, where, in the late 1780's, an etoile appeared in the region and began to spread its influence.

It chiefly used the liberation movement to spread infection among prominent Negro leaders and among the rebels. The sandmen Toussaint L'Ouverture in particular freed the slaves in 1793, then forced the British out in 1798. He was killed by the French in 1802, but two years later another sandman, Jean Jacques Dessalines, declared independence and renamed the country Haiti. For the next five decades, the etoile expanded his power until almost ten percent of the population was sandmen.

However, things soon went awry. The rogue sandmen Faustin Elie Soulouque rose to power and subsequently the country began to disintegrate into disorder. Though in the history books it is said to be a struggle between negro and mulatto political aspirations, in fact it was a three way conflict between the etoile's sandmen, the rogue sandmen (believed to have links with the Germans) and the anti-sandmen faction.

In the end, the etoile was defeated, but only with the alliance between the rogue sandmen and the anti-sandmen factions, and the intervention of the United States in 1915 to finally bring some semblance of order. The uneasy agreements signed by the two factions led to small uprisings and disturbances for the next few years, but the sandmen influence, with no etoile to guide it, has lessened. With the growing power of the etoile in recent years, the rogue sandmen of Haiti have responded with a growth of power.

Haitian rogue sandmen and humans who know of the struggle are prominent in Haiti, making it one of the epicenters of anti-etoile resistance. Today, sandmen walk the streets of Port-au-Prince and even New Orleans, using the mystery and stereotypes of Voodoo to hide their true mission.

Plague Transmission: The 19th Century

David Tormsen

The Opium Wars

In the early 19th century, China was a major market for the European powers. However, despite the advanced technologies and commodities the Europeans could offer, there was really only one thing of interest to the Chinese; silver. The British found a way around this problem by introducing opium, which was prized for its medicinal value, to China in vast quantities, and in a stronger (and addictive) form. Though this trade became illegal in 1836, the British bribed officials and soon miserable opium dens were springing up all over China.

Though opium by itself was damaging to China, it perhaps would have been ignored, except for a terrible byproduct of it. Sandmen agents in the British East India Company began to seed selected batches of the opium for export. When the opium reached the dens in Canton and other Chinese cities, opium addicts began to become sandmen, starting an epidemic in China. Interestingly, it seems the British were entirely unaware of this byproduct of their extremely lucrative trade.

A figure that became aware of the sandman threat to the country was the brilliant and highly moral official Lin Tse-hsu (who was in many ways reminiscent of the famous Roman censor Cato). Having once narrowly escaped a sandman attack with his life, Lin dedicated his career to ending the opium trade and the sandman threat. He maneuvered himself into the position of Imperial Commissioner of Canton, and began a campaign to wipe out sandman-infected opium dens in the city and elsewhere.

The British and Lin soon came on a collision course. When the British refused to stop their opium trade, Lin threatened to cut off all trade between China and the British Empire. After Chinese junks began to turn back trade ships, the British sent warships and later troops to force China to open its borders to trade. In 1842, the Chinese signed a peace treaty, which ceded five open ports to the British. Similar treaties were later signed with France and the United States.

After the Chinese defeat, Lin Tse-hsu was placed in an isolated Turkestan appointment (where he pushed for the imperial government to adopt Western technology and warfare, and was largely ignored) and the opium trade tripled. The sandmen infiltration of China continued, and was not seriously weakened until the 20th century, when a combination of the Civil War, the Japanese Invasion and the Cultural Revolution

wiped out most of the sandman population in China. Still, after Hong Kong became British, sandmen flourished there (and continue to today) and pockets of sandman infiltration exist across the country, particularly in the west.

General Charles Gordon

Charles "Chinese" Gordon first encountered sandmen during the Taiping rebellion (an elohim-supported reaction against a 19th century Chinese version of the modern Final Church which blew out of proportion and led to an attempt to set up a Christian Theocracy within China) in 1864. During an assault on an enemy stronghold, Gordon witnessed at least three of the Chinese soldiers in his 'Ever Victorious Army' dissolve into dust upon being slain.

Later, in 1877, he again encountered sandmen, in the form of slave traders who terrorized the mostly human black population of the Sudan. Not only did they enslave the local population, but they would slowly turn charismatic or powerful figures among the blacks into sandmen, to further control and terrorize the people. After destroying several sandman strongholds in the Sudan, Gordon eventually moved onto quieter assignments and returned to England.

He returned to the Sudan in 1884, in response to the rise of a powerful Islamic leader (and sandman) who called himself the Mahdi, or 'expected one'. Determined to free the human population of the Sudan from the Mahdi's chiefly sandman armies, and also to prevent them from threatening British Egypt, Gordon took Khartoum and held it for months despite relentless attacks by the Mahdi's forces and little support from Britain itself.

Despite Gordon's best efforts, the city fell to the Mahdi and the sandmen. Two days after Gordon's death, a British army arrived at Khartoum, too late. It took the British years to break the power of the Madhi and purge the Sudan of most of its sandman population. Small infections in the area still exist today, and are believed to have increased in number in recent years.

The Comanche and the Buffalo Soldiers

The Comanche Indians were feared and hated by most of the stable and less warlike tribes of Texas and other American states. Current evidence suggests that these people were indeed sandmen, at least a large percentage of them. Other sandman American Indian tribes, such as the Wichita, came from the north and potentially spread infection from the original

introduction of the sandmen to the New World at the Vinland colony, to local tribes in the south. Though most of the sandmen in the North died out before European contact, the Comanche infection survived.

The Apache, who were probably human, came into conflict with the Comanche sandmen. The former were forced south by the latter, but the Apache soon developed a reputation as being just as warlike as the Comanche. When Texas was Mexican territory, the local powers found it extremely difficult to control the Comanche and to stop infection from spreading to Mexicans.

Comanche sandmen were instrumental in the foundation of an independent Texas, and of Texas' inclusion in the Union (behind the scenes, of course). Comanche sandmen even fought on the Confederate side during the American Civil War. After the war, certain movements in the Union began to push for an end to the Comanche threat. The Buffalo Soldiers, African-American cavalry divisions, were used to bring the Comanche under control.

In a series of exploits, the Buffalo Soldiers began to weaken sandman influence on the Comanche. Though the sandmen fought bitterly, they were outmatched by the Buffalo soldiers. The Buffalo soldiers also brought other dangerous influences in Texas and the American south-west under control, both sandmen and humans, from Mexican revolutionaries to outlaws.

Though the Buffalo soldiers fought well against the sandman influence in Texas and weakened them considerably in the short run, they ultimately failed in purging Texas of sandmen. Today, sandman-owned companies are eager to buy up land formerly belonging to the Comanche, and some Comanche are encouraging them to do so. The Institute believes that some of these Comanche lands hold secrets, possibly Doorways, but there is no way to be sure.

Sandman Influences: Xinjiang

Jim Clunie and Derek Shakabpa

Jim Clunie: Chinese sandmen? Now there's a thought.

The Xinjiang-Uighur Autonomous Region would be perfect for them. It's the closest part of China to the known infestation at Magnitogorsk, a rugged semi-desert region, and has high yield oilfields and heavy industry around the provincial capital, Urumqi.

Losing an entire province of 17 million people would be sheer carelessness on the part of the Chinese government.

The areas of greatest compromise are the capital, Urumqi, and its outlying towns of Karamay (the site of the first major oil discoveries in the region), Kuqa and Hami in the Junggan, Tarim and Turfan depressions. All these little-known settlements are marked by the bright night-glow of massive industrial effort that is certainly not reflected in their production quotas provided to the Beijing government.

The province's far eastern city of Kashi, or Kashgar, seems to stand aloof from sandman influence. It is almost certainly controlled by the Rosicrucians.

Derek Shakabpa: By way of some background, Xinjiang is the Chinese name for this area. The local people, called Uighurs, call it Eastern Turkestan. The Uighurs are a Muslim Turkic people who settled here in the 7th Century. They are ethnically distinct from Chinese and have their own language and culture.

If you intend to send Hoffmann Institute agents into this area, you should know that security is tight in this region. That's because for the last 50 years, the Uighurs have been agitating for independence from China. There are several Uighur guerrilla groups and the Chinese have a large military and security force in the area.

Suspected separatists, whether violent or peaceful, are arrested, tortured, and usually executed by the Chinese Govt. China also strictly controls speech, assembly and religion in this area as many Uighur Muslim clerics are believed to favor independence. Foreign journalists are often not permitted or are closely monitored when visiting this region.

There is also a huge nuclear power facility (near Lake Kokonor) and toxic waste dump in Xinjiang. Lately, ethnic tensions have been on the rise as millions of Chinese colonists have been migrating to Xinjiang in the last few decades threatening to make the Uighurs a minority in their own land.

Xinjiang was formally incorporated into Chinese Empire in 1884. It's the only "autonomous region" with a Muslim majority. The non-Chinese population is about 9 million with 8 million being ethnic Uighurs. Xinjiang means "New Dominion" in Chinese.

The Manchu Qing Empire first invaded this area in 1759 but were unable to consolidate control. Yakub Beg, an ethnic Uighur, ruled this area from 1866 to 1876. The Qing again invaded in 1877 and consolidated its rule by 1884. The Qing Dynasty fell in 1911 and the territory was ruled by competing warlords until 1944.

In 1944, an independent, Soviet-backed, Uighur state was established called the East Turkestan Republic. However, with Soviet consent, Chinese communists took over Xinjiang in 1949 and have ruled it since as part of the People's Republic of China.

About 40% of the total Xiinjiang population of 18.5 million people are now Chinese. Han Chinese tend to dominate commerce as well as politics. Uighurs tend to have lower incomes, less skilled jobs, and worse health care than their Chinese neighbors.

More information on E. Turkestan can be obtained at www.taklamakan.org.

Sandman Influences: Sandmen in the Third World

James Nostack

Well, What Isn't Their Fault?

The *Dark•Matter* book suggests that the first Etoile arrived on Earth in the 1790's, and the general impression I get is that somehow they travelled with the French army throughout a lot of north Africa: Algeria, Tunisia, the whole swath. Other sections of the book indicate that the Sandmen are making life difficult for the Russians in Chechnya and Magnitogorsk—and the region in the middle is, roughly speaking, Kazakhstan and Afghanistan. From this I gather that the Sandman Plague somehow piggybacked from North Africa to Central Asia, though whether that's deliberate or simply a historical accident, I don't know.

Given that the Sandmen seem to focus on Third World countries, you sort of wonder how they would have regarded some of the Communist revolutions in the early half of the Twentieth Century. In 1917 Russia was one of the most backwards, disorganized states imaginable; whatever one thinks about life under the Communists, certainly the central government became a lot more powerful. The same holds true for China and several African countries: Communism may be a lousy system if you're concerned about liberty, but if you want to modernize in a single generation, it seems to work pretty well.

So, if you're an Etoile, and you painstakingly masterminded a scheme to infiltrate the laughably backwards nation of Craplakistan, a People's Revolution could really throw a monkey wrench into your plans. It stands to reason that the Sandmen might be some of the fiercest counter-revolutionary forces around, and could offer a link between the Sandmen and United States military intelligence. On the other hand, once the Revolution finally succeeds, a monolithic bureaucracy might be just the tool the Etoile were looking for. At any rate, Stalin's purges, the Chechnya mess, and the 1980's war in Afghanistan conceivably might have connections to rooting out the Sandmen.

Also, if the Sandmen remain secret largely to avoid tipping off the Fraal, it's possible that the entire Space Race was simply a way to boost mankind's technological capacity, forcing the Fraal deeper into secrecy. With the Fraal gone, or at least withdrawn, the Sandmen could operate more aggressively. As nifty side effects, the space program led to the widespread use of computers and the creation of a worldwide communication network. Maybe the Bush

administration's renewed call for the militarization of space is just another maneuver in the struggle between the Fraal and the Synergy.

Sandman Influences: Corporate Sandmen

James Nostack

The Worst Job I Never Had

My friends and I are all in the mid-twenties "Dead End Jobs To Crush Your Spirit" phase of our lives, and one poor bastard wound up as an Initiatives Analyst for a telemarketing company called ICTGROUP. (ICT is officially pronounced "I see tea," but in my lingo it became "ick.") During my brief infiltrations to pick him up for lunch, I saw some mad vision of a world totally devoid of the human soul. ICT is, in some strange way, the most horrible company I've ever seen. It's not really *worse* than any other large corporation; it's not some hellish, grinding dystopia or anything. It just sort of enshrines the bland, emotionless Drone World that characterizes everything that's deadening in modern business. Other companies approach this ideal asymptotically, but ICT is the real deal. (It doesn't help that they just bulldozed a forest next to my hometown to make room for their new international HQ.) I'll never get over that first impression: a world neither good nor bad, but still somehow completely inhuman.

I'm only bringing it up because when I first began thinking about the Sandmen, the phrase "Borg with fax machines" stuck in my mind. I imagined a clique of pinstriped drudges who communicate with infrared bit streams around the water cooler. It's been remarked by a number of people that working for large companies is dehumanizing; maybe that's literally true. In any case, it's been assumed that the Sandmen mainly focus on government agencies and NGO's, but why aren't they in business? A large multinational, particularly in the computer or telecom industry, would offer a cover for travel, a method to distribute resources around the world without attracting attention, and a source of new recruits ("Human Resources" indeed!). It would also provide a revenue stream, and a way to influence politics, technology, and media—all out in the open.

Sandman Influences: Sandmen and the Hoffmann Institute

David Tormsen

The Sandmen as Allies

As foes, the sandmen are a formidable force that must be overcome. But as allies, things become more interesting. How does a team of human heroes interact with a group of nanite-enhanced warriors when they find themselves fighting alongside them? The sandmen have a nefarious agenda to be sure, how can such ends be rationalized away? And why would such an arrangement come about in the first place?

The Enemy of My Enemy

When a powerful force arrives on the planet bent on the annihilation of all life, neither the Hoffman Institute nor the sandmen profit. With a common enemy too powerful for either the Institute or the sandmen to defeat alone, an alliance seems a viable option. Such an enemy could be anything: the Final Church and the Bering demons, the kinori, or a hostile alien race infiltrating human society. Whatever the threat is, it should be of a magnitude and horror that the sandmen's goal of global takeover seems the lesser of two evils.

This is not to say that the Institute will trust the sandmen, or vice versa. An alliance does not change the fact that the Hoffman Institute is opposed to the sandmen's ends. A team of heroes may fight alongside a team of sand warriors, it should be a tense mission. The possibility of the sand warriors trying to infect the heroes, or sandmen spies in the corridors of the Institute, should always be there. And once the threat is dealt with and mutual enemy has been defeated, what happens next?

Silver Section

Silver Section is the name given to the Special Division section devoted to the use of sandmen for Institute purposes. It is situated in an Institute training facility somewhere just south of the border. Only a few join its ranks, those with the right physical tolerance and psychological stability to survive. For there, through the use of a captured etoile or by a clever duplication of etoile technology, Hoffman Institute agents are voluntarily converted into sandmen.

Silver Section is distrusted by much of the Institutes rank and file, and even those within the Special Division itself. Red and White section agents in particular have a subtle hatred for the sandmen of Silver Section. Of course, they aren't called sandmen if they're Silver Section,

they are "technological combat specialists" or TechComSpecs. For the most part, they are very loyal to the Institute, but that loyalty may or may not be linked with the fact that they are constantly under heavy scrutiny.

The Advancement of Humanity

For some, the sandmen represent not a threat, but an example to be strived toward. They see the sandmen as humans who have achieved a balance between themselves and their technology, in tune with their bodies and sharp of mind, immune from disease and natural death. They see the etoile as benign artificial leaders, unsullied by the flaws of humanity. In so many ways, the sandmen society seems to coincide with what many in the Institute describe as their personal utopia. Therefore, the two sides make the perfect allies.

Even if the majority of the Institute thinks this way, there will be many who do not, including (or maybe not including) the heroes themselves. There are just too many aspects of the sandmen and the etoile that doesn't fit with the utopian view. The heroes may discover their seemingly excellent allies are, in fact, plotting against humanity. Of course, the sandmen and their allies within the Institute would then try their hardest to keep that information from getting to the Institute at large...by any means.

Disease Clusters: The Silicon Sanctuary

David Tormsen

In the London underground music scene, there is a place that is known far and wide. It plays music unlike anything else, music that warps the mind. Drugs are free and easily accessible there, pills and needles of narcotics unavailable anywhere else in Britain. There are never any raids, no disruptions. As the city sleeps the party lasts all night, every night. This is the Silicon Sanctuary.

But there are other stories whispered about the place as well. That the eerie music hypnotizes those who dance. That the drugs make people change, and become sick, then suddenly be healthy again but somehow different. That people have gone in there on whim and have never come out again. And that sometimes, when the music is playing the loudest and the whole crowd is so far gone in music- or drug-induced torpors, that metallic tendrils descend from above to writhe in the air and amongst the crowd, and then latch onto dancers and drill into their brains.

The number of people who know about the exact location of the club is pretty small, but its reputation extends far and wide. Once found, there is the matter of getting in. Two large bouncers stand at the door, which itself is rather unassuming. They are both sand warriors, and are can tell a threat when they see it. It is possible to get past them, if the bouncers can be convinced that whomever wants to enter does so purely in the pursuit of pleasure and the beat.

Inside it is dark, with lasers and smoke and colored lights flashing above the dance floor. There is a turntable for the DJ, and a bar and seats nearby. It is perpetually kept dark and the music is always playing. There are always people on the dance floor, twisting and gyrating to the sound of house music or punk or whatever happens to be playing at the time. There are other figures, however, who stand aside and watch. They are always there, observing and keeping an eye on things. They are, of course, sandmen.

There is a door at the far end of the club which is always kept locked. Behind it are stairs, watched over by security cameras and hidden microphones. Up the stairs and into a room directly above the club, there is an etoile, the boss of the Silicon Sanctuary, who took up residence during the early 80's and hasn't left since. It controls all the sandmen in the club below.

The drugs given out freely in the club are laced with regenerative nanites, like those that create

the sandmen. But they are not the same. They subtly alter the brains of those that take the drugs, leaving them open to suggestion. This suggestion is the music, synthesized by the etoile itself, with a beat and rhythm of an alien and seductive nature. With the nanites in their brains and the music issuing instructions, the dancers enter trances. The nanites release euphoric hormones into the blood stream, keeping the dancers in a state of blissful unawareness.

At this point, the tendrils emerge from the roof. They play amongst the dancers, brushing against them and wrapping around them. The ones who do see them are too far out of it to care. The tendrils facilitate the last in the process, and allow the nanites within each brain to send messages to the nanites in the other brains. The end goal? To create a network of nanites and brain cells working together under the control of the etoile's music, in effect creating an extremely powerful computer.

The technique is not perfect. The etoile has not yet achieved the perfect synergy of nanite, brain matter and the beat. Patrons of the Silicon Sanctuary stumble home, and wake the next day with confused memories, having picked up snippets of other experiences from those around them on the dance floor. Sometimes there are dire psychological effects, with the emergence of multiple personalities and hallucinations. The etoile keeps working. If it succeeds, then it will have in its possession a computer made of the combined brain power of hundreds of young men and women, a computer more powerful than anything short of OSIRS.

Disease Clusters: Parker Heights High School

David Tormsen

Parker Heights High School is one of the top ranking educational providers in the Eastern United States. It has a standard of excellence that is almost unparalleled. It competes in national science competitions, sports and cheerleading championships, chess and music tournaments, and holds many academic and sporting achievements. It has been consistently chosen among the top five high schools in the country for the last seven years running.

A bit of a difference from the old days, when Parker Heights High School was considered a bad school, rough and dangerous, the sort of school that bred gang members and postal workers. Then, in 1995, a new principal was appointed: Principal Steel. Of mysterious past, he quickly introduced the program that would prove the catalyst behind the schools remarkable transformation: the Self-Development and Achievement Program (SDAP).

The SDAP program involved the testing of each student entering the school. Those with advantages, of high intelligence or stamina, the best of the student body, were separated from the rest of the school and instead became involved in the SDAP program. On the outside it was to help foster their individual talents in the best possible environment, while the less fortunate could benefit from social contact with those of their own level.

Soon people began to notice things strange about the SDAP students. They seemed to slowly go through strange personality changes as they spent more time in the program. In particular, a SDAP orientation camp held at the start of each school year seemed to have the greatest effect. They would quickly break ties with those outside the SDAP program. They would study or train almost obsessively, and seemed to all develop identical moral views.

They were soon the highest in the school social structure. Dressed in identical SDAP uniforms (letter jackets for the guys, jumpers for the girls) they became unquestionably the elite of the school, those with the highest scores on tests, those with the best manners, those who performed the best on the sports field. As time went by and the SDAP students graduated, they would stay in town for a single year, then all leave for the same university, and then never be seen again. Meanwhile, another year of talented students entered the program.

Sometimes, however, strange things surrounded the SDAP students. Called the SDAPo (rhymes with Gestapo) by the lesser portion of the student body, they occasionally had the tendency to get a bit violent. It would often be over the most trivial things, but the results would be terrifying. Mysterious deaths and bloody in-class attacks weren't quite common, but they occurred often enough to be disturbing. However, the local police have rarely looked into these crimes, and often cover them up.

The truth is, of course, that Principal Steel is an etoile, acting through a sandman puppet whose brain the etoile controls. It has turned the majority of the school staff and the entire Parent-Teacher Association into sandmen as well, and thus has great power over the local community.

The SDAP is a useful cover for the etoile's activities. Each year, it infects a select number of elite students during the orientation camp. SDAP is in fact a sandman training program, in which the students are indoctrinated and taught what the etoile deems necessary for the war. They then continue their studies in major universities, and then are quickly recruited, sometimes by sandmen dominated companies or the ATF, or into other corporations and government agencies as part of a infiltration program.

The entire school is imbedded with the etoile's tools. It is connected with the school security system at all times, and knows almost everything that goes on in the school. The school newspaper is published with a band of lines that appear to be decoration but are in fact encoded secret instructions for the SDAP students. The school showers spray a wash of billions of nanites, which look indistinguishable from water but isn't, for it does not damage the SDAP students in any way.

The occasional outbursts of violence are unfortunate in the etoile's point of view. As part of their indoctrination is a separation of SDAP students from normal romantic, social or sexual interaction. Though the nanites in their bloodstream suppress their urges and the indoctrination keeps them from acting on them, they are teenagers, and adolescent hormones are known to interfere with even the most sophisticated nanites. The deep-seated urges occasionally threaten to break out. The nanites react, and the result is often that the urge is released as a rage instead, and the SDAP student suddenly bursts into a fit of violence. Steel is working on a way to prevent this, but the solution has so far foiled him.

There are those in the school that are beginning to pick up the truth. On the opposite end of the social spectrum, there are the freaks, some of them mentally or physically handicapped but others very talented, who simply refused to join the SDAP program. They are ostracized even by the non-SDAP portion of the school, but they stick together and they harbor in their ranks those starting to get a glimpse of the truth. They stay low, for there are stories of the freaks of 1999 who found out too much. About half of them were forcibly initiated into the SDAP program, the others simply disappeared.

One who does know the truth is the man no one ever pays attention to. The caretaker is a quiet man who goes about his job and no one gives him a second look, not even Steel. But he hears and sees a lot, and never gives away what he knows. No one in the school even knows his name. Secretly, he is a member of an Invisible College cell, and has been watching the school for a long time. He is working on something to put an end to the etoile's plans. What it is, no one yet knows...

Disease Clusters: La Casa de los Murciélagos

Jim Clunie

I think I'll go with "La Casa de los Murciélagos" but give the English translation as "the House of Bats". The name isn't meant to be scary in itself, just a strange local legend.

This is an adventure set in a hotel in the old quarter of Acapulco. The building is a converted mansion dating back to the 19th century, with handsome golden-brown brick walls, heavy timber ceiling beams, polished timber floors and antique panelled timber walls. It's now the Fiesta Americana Hotel, but the locals know it as La Casa de los Murciélagos because of the many bats that fly out of the roof at sunset and return at dawn. The owners seem to be unable to get rid of them.

The place is well known among hotel workers throughout Acapulco. Nearly anyone working in the tourist trade can tell stories about tourists who disappeared, or returned home strangely changed, or wasted away and died when staying at the Fiesta Americana.

(This part is inspired by a true story: <http://www.cdc.gov/od/oc/media/pressrel/r010427c.htm>)

Although it has a bad reputation among the locals, the hotel never seems to have a problem keeping staff. It's popular with independent travelers from the US and Europe for its old-world charm, attentive service and inexpensive prices.

The reason for the strange occurrences:

The hotel is home to an *etoile* that exists in the attic, where it has grown metallic tendrils into and through all of the timberwork. The machine-creature controls the bats, which it uses as flying spies, and the staff, who are all sandmen. The hotel has no problems with workers, because nobody working there ever leaves, ages or dies.

The *etoile* has been in the building since it was constructed in 1807. Diego Gallia, a scholar who was forced to flee Castile because of the chaos caused by Napoleon's occupying forces, brought his "familiar spirit" with him in a great iron box, and released it into the house that he built with his riches.

The heroes can find various scary things in the hotel, like metal wires in the doors and bedposts, old statues and books of occult significance, and the night manager, who seems to be awfully familiar with 18th-century Spain (he should, he was born there). They will

probably think they're dealing with vampires, *ekkimu* or wizards. Their worst enemy, though, is everywhere around them in the walls and floors, controlling the doors, lights and water, and watching them as they sleep.

Too much for any group of heroes? Or just the thing for a scary adventure?

Sandman Schematics: Infection

Jim Clunie

A human becomes a sandman by being infected with sandman nanites. The sandmen do this deliberately as one of their standard mission types (infections). They're an organized army, not a zombie horde, so they only choose to infect those who are worthy and useful to their cause.

It's stated that a recruitment doctor (a sandman cyberneticist that specializes in converting humans) can infect a human by:

- a casual pinprick (or presumably some other form of injection)
- an aerosol spray
- exchange of bodily fluids.

There's also a published instance of victims being infected by a medical implant, installed at a sandman-controlled clinic, that contains "dormant etoile nanites" that were activated accidentally. I think the last bit is just the author's throwaway line, but anyhow. Another source mentions that it might be hazardous to handle a wounded sandman, though in that instance, at least one person has done so without being infected.

The sandman needle gun doesn't cause infection, though it definitely contains nanites (they dissolve the gun when it's lost or the owner is destroyed).

Since there is a defined bonus for being infected when under the care of a recruitment doctor, there must be a way to be transformed that does not involve a recruitment doctor, or at least the constant care of one.

Drawing together all the current evidence:

- Sandmen infect humans deliberately as part of a planned operation. This probably involves a specialized form of nanites.
- The nanites must be injected into the body, or at the very least breathed in or sprayed on the skin.
- Infection methods are most often created by a recruitment doctor and applied directly by that specialist, but the recruitment doctor can prepare methods that can be used by ordinary sand warriors or sand scouts.
- The early stages of the infection bring the victims under the control of the sandmen. The victims can be influenced to travel on their

own to a sandman base. However, they must be taken into sandman custody (preferably taken to the etoile itself) to complete the process properly.

If sandmen - especially a group that includes a recruitment doctor - capture one or more heroes, they might well infect those that they consider useful. It's not clear what would happen to those they rejected.

Some more possible ways that sandmen could infect humans:

- A needle trap, placed where a certain group of humans or one particular person will stick herself with it.
- A bite from a nanite-transformed animal.
- A large-area death cloud of nanites (this seems to be a common tactic in North Africa).

Sandmen would probably not use a dart-gun to cause infection, unless there was some special reason to leave that person in contact with her colleagues as the disease progressed. If they knew in advance that they'd have good enough access to shoot a chosen victim, they would prefer to knock the victim out, take her away, and complete the transformation in more controlled conditions.

Q: If I understand correctly, one becomes infected with nanites and is under control by sandmen-he is not full sandmen yet. Is he still free willed to do other activities until sandmen call upon him. Can he be "cured" ? If he is killed in a meantime does his body dissolve like the regular sandmen?

A: I based that on the latest Dungeon article, in which there are some recently infected people who have got on a train by themselves to travel to a sandman enclave.

I think the nanite infection would cause very rapid changes to the brain, deliberately to apply this control. At first the sandman neural tissue would only be able to control very basic urges - eat more protein and vitamins, hide from others, sleep a lot. Next would be the urge to seek the etoile/obey the sandmen. The victim would probably remain conscious but have strange impulses.

The disease is far more resilient and adaptable than a normal infection. It might be possible to treat it, if you knew what you were dealing with. The patient's own immune system can't fight it off.

I don't think the victim's body would dissolve if killed until he had acquired the full body

morphing ability. Some of his organs might dissolve though (parts of the brain, liver, long bones, and the like). The nanites would self-destruct, though they might leave an odd residue that could be picked up in blood tests.

Q: What becomes of sandmen and infected people if *etoile* is killed?

A: That's a very interesting question. To fit with my *Agarttha* theory and others' contributions, I think they would survive, and could even continue to infect people. If another *etoile* came along it could try to reprogram the orphan sandmen.

Q: So - what you mean to say once someone is infected there is no turning back, no cure?

A: It's very difficult to cure, but maybe not impossible. There is indeed no turning back. Once infected, you become a sandman.

If someone tried to treat it, I would apply a +3 penalty straight off if the doctor didn't know that it was a transforming agent rather than a natural disease. They would simply give the wrong treatment for the wrong reasons. Then there would be either a +5 penalty for dealing with PL 7 alien technology (see the *xenoengineering* skill) or a +4 penalty for dealing with alien biology that works on unfamiliar physical principles, depending on whether the medical team concentrated on disrupting the nanites or blocking them from damaging the patient's genetic structure. In the best possible case, a doctor with high ranks in *xenoengineering* and *xenomedicine* (*sandmen*) could possibly reduce the treatment penalty to nothing.

At least sandman nanites don't coalesce into a cat-sized blood-slicked mass and try to invade a new host in the middle of the treatment, while one of the medical team throws *Shrivelling* spells at it. Maybe, as a last effort, they might collect together and rupture the patient's lungs, making him cough nanite-laden arterial blood all over the medical team. ER has given me way too many ideas for this sort of thing.

Sandman Schematics: Recruitment Doctor

Jim Clunie

The etoile choose suitably skilled, highly trusted members of their army as specialists for the vital mission of preparing and administering nanite cultures that transform humans into new sandmen.

Description: Recruitment doctors are often smaller and slimmer individuals than the solidly-built sand warriors, though they are equally fit and healthy-looking. They eschew obvious cyber-enhancement in order to blend in almost perfectly to human society.

Encounter: The specialist skills of a recruitment doctor support a wide range of methods to infect their chosen targets unawares, taking advantage of everyday opportunities for bodily contact, minor injury, spraying substances on the subject's skin or tampering with items designed to be inserted into the body. The doctor might provide his sand warrior escorts with devices such as small syringes or atomisers to allow them to spread through a crowd, targeting one or many chosen individuals. Other missions require the recruitment doctor to get up close to a chosen target by a ruse or sustained deception.

If at all possible, the sandmen would prefer to bring in infected people for sustained medical care and observation in order to support them in a smooth transition to their new existence. The infection culture itself aids in this mission by implanting low-level impulses in the victim to seek out sandman bases. The recruitment team may use their needler pistols loaded with *morpheotoxin* (see the Dark•Matter sourcebook) and other non-lethal weapons to capture infected individuals or to neutralise anyone protecting their targets.

See the Dark•Matter Sourcebook for further details on the sandmen's low-frequency vocal modification, vulnerability to electrical damage or immersion in conductive substances, reshaping, fusion and *blood music* abilities.

Habitat/Society: A recruitment doctor forms the core of a sandman unit assigned to gather new converts, assisted and protected by a number of sand warriors and scouts.

Few present-day human careers provide a new recruit with any useful technical knowledge of nanite bio-transformative processes. A sandman with nursing, general medical or epidemiological experience has some prior knowledge of the reactions and modes of failure of the human body under severe physiological stress. Often,

though, knowledge of human psychological drives and motivations is more useful as a basis for the recruitment doctor's skills, leading the sandmen to draw their recruiters from human resources specialists or supervisors in high-stress industries.

Sandman Recruitment Doctor Game Data

STR 10
DEX 11 (+1)
CON 11
INT 12 (+1)
WIL 9
PER 9

Durability: 11/11/5/5
Action Check: 14+/13/6/3
#Actions: 2
Move: Sprint 20, Run 12, Walk 4
Reaction Score: Ordinary/2
Last Resorts: 1

Attacks

Shock stick	10/5/2	d4+1s/d4+3s/d6+4s	En/O
Needler pistol	12/6/3	special: paralytic poison (+2, onset 1 round)	LI/O

Defences

+1 DEX resistance modifier vs. ranged attacks
+1 INT resistance modifier vs. encounter skills
-4 step bonus to CON feat checks to resist toxins

Skills

Athletics, Melee Weapons* (10), Modern Ranged Weapons-*pistol* (12), Vehicle Operation (11), Stamina-*blood music* (12), Business-*corporate* 3 (15), *illicit* (13), Computer Science*-*hacking* 2 (14), *programming* 2 (14), Knowledge-*computer operation* (13), *English language* 3 (15), Life Science-*biology* (13), Medical Science-*treatment* 2 (14), *psychology* (13), System Operation*-*sensors* 2 (14), Awareness (9), Investigate (9), Resolve (9), Interaction**-*bargain* 2 (11), *charm* 2 (11), *interview* 3 (12), *intimidate* (10), Leadership (9)

* Skills aided by fusion (-1 bonus)

** Aided by low-frequency vocalisation (-3 bonus)

Sandman Schematics: Insect Vectors

Jim Clunie

Altered Mosquitoes

The etoile have developed over centuries, or perhaps retained from a period of high development in past ages or an alternate frame of reality, a number of altered mosquito species for specific tasks.

Phylax

This is a very small, short-lived mosquito that occurs in vast swarms in swampy areas. Individuals are sterile and can only be reproduced by cloning, making this dangerous species easy to control and deploy as required. The sandmen use phylax swarms as defensive and offensive weapons to dissuade human entry to their areas or to drive out inconvenient settlers.

The protein structure of a phylax' mandibles has been genetically strengthened for deeper penetration and enhanced allergic potential, and its behavior encoded for aggressive and persistent biting of large warm-blooded animals. Its saliva contains both the usual anticoagulant and anesthetic agents that many mosquitoes use, and histamine compounds that are definitely not typical of mosquitoes. Unless heavily protected, victims are likely to be bitten dozens or hundreds of times over the course of a few hours. The bites cause swelling, white-centered lesions and ferocious itching that can lead to serious skin damage from uncontrolled scratching. More seriously, the buildup of histamine and allergenic proteins in the blood can cause dizziness, confusion, weakness, fever, systemic collapse and death.

Each hour that a person remains in an area containing a phylax swarm with any area of skin exposed, she must make a Constitution check. This check has only a -1 bonus if the victim uses insect repellent, as phylax are unusually persistent. On any success, the bites are merely severely annoying (no game effect on Amazing, +1 penalty to actions on Good, +2 penalty on Ordinary). On a Failure, the victim suffers a +2 penalty on actions due to severe itching and scratching the skin raw, and also suffers the effect of a hemotoxin (insinuating, -2 bonus to CON feat check, onset 1 hour, duration 1 day). Multiple Failure results increase the severity of the CON feat check against this poison, adjusting its modifier upwards by one step for each Failure.

The process to create a phylax swarm does not require nanites or high dark matter flux and has been picked up in the past by human groups within the areas that phylax were commonly

used. This has persisted in African and Caribbean traditions of creating deadly curses or potions to defeat enemies using cauldrons of blood and rendered flesh, combined with secret powders that have insect eggs or husks as a major ingredient, and was a significant contributor to the great 19th century fear of "tropical diseases" among European colonizers. This lore may even have been transmitted, in a confused and non-functional form, from Liby-Phoenician merchants to their British Celtic trading partners in pre-Roman times.

Genetrix

This is a large mosquito species with naturally evolved deep-piercing mouthparts that has been adapted by the etoile to carry the sandman nanite infection. The genetic alterations to this species are subtle, increasing the size and output of its salivary glands and enlarging its sensory ganglia for precise navigation and targeting of selected groups of victims. In this base state it is regarded as a natural mosquito species by conventional biology and is particularly well known in the Southern US and East Texas.

Sandmen activate the genetrix swarms during their breeding season by spraying or seeding their breeding pools with a nanite-laden brew, imparting a culture of infection nanites, combined with short-term modification cultures that adjust the genetrix neural pattern, targeting them on the terrain and victim population that the sandmen choose for that season's wave of infection.

Genetrix can be programmed to swarm into farmlands of different grades, coastal areas, small towns or cities, and to target children, the elderly, either sex, or even to favor particular races. It has been theorized that the surprising tactic of infecting elderly victims trades a reduced survival and conversion rate for a wealth of experience, positions of leadership, and strong loyalty to the etoile, which can offer the recruit rejuvenation and curing of all degenerative disease.

The nanite infection carried by genetrix has been mistaken for, or covered by, epidemics of St. Louis encephalitis in the US and leishmaniasis in attacks on US servicemen in Kuwait, Iraq and Afghanistan.

Ultor

This mosquito is unusually large and known as a slow, noisy flyer due to the force of its wing beats. Etoile tampering with its genes has further increased the species' size and body mass. When needed, the sandmen infect each

ultor with a massive dose of secondary nanites, transforming it to a short-lived terminal stage that can transport sufficient nanites to invade and take control of a small electronic device.

Most of the ultor's internal organs are cannibalized by this process, leaving it as a muscle-bearing shell over a coiled lump of micro-tendrils wrapped around a minute datacore of engineered magnetite. Once the ultor enters the target device, its body breaks apart, scattering dust-like flakes of chitin that can cause allergic reactions to sensitive people. The nanites flow into the device and form links into its circuits, delivering pre-programmed information or acting as a transceiver for remote control. One ultor is sufficient to control a desktop computer, electronic fuel injection system, or similar advanced electronics. Many individuals may be needed to invade more crude devices such as older air-conditioners.

Lone Star Tick

This tick species is known as the prime vector of ehrlichiosis, a debilitating parasitic disease similar to Lyme disease but more virulent, less specific in its symptoms and without the tell-tale bull's eye rash. It's less well known that many such tick-borne infections serve as a cover for a more insidious and final form of infection.

The Lone Star tick has spread rapidly, with sandman assistance, from its East Texas home across the eastern states. Similar outbreaks have been reported from the Caucasus infection site centered on Dagestan.

Sandman Schematics: The Houston Virus

Jim Clunie

"Agent of record is Dr. Lisa Savarian, of the Analytical Division, Bio and Chemical at Hoffmann Research Park in Flagstaff. I've been working with Dr. Maxwell Rickman on a number of medical developments of concern. I think that one of my projects may have overlapped with an Intelligence Division case.

"I received a call at 2 am from an Institute contact at McKenzie-Willamette Hospital in Springfield, on the east side of Eugene. A patient had been brought in, showing a number of symptoms matching a syndrome that we've tagged HAV-3. When I ran a standard background check, an OSIRS flag came up. I understand Intelligence has an interest.

..

"The patient feels hungry - not just that, but craves a number of specific foods. He often states the numerical amount of food that he wants. Patient is intensely aching, feverish, nauseous, and hungry at the same time.

"Patient reports stabbing pains, beginning at the base of the skull and upper spinal column, spreading to the rest of the head, the solar plexus and genitals, hands, then to generalized severe muscle aches. Fever, visual flashes, tinnitus, illusions of other senses, for example, sensation of insects crawling on the skin similar to ergotism. A variety of acute, but minor neurological quirks. A foul taste in the mouth and nauseous feeling. In some ways, symptoms exactly mirror morning sickness."

"Patient had a high fever on arrival, complained of severe general pain, and asked for lemon juice (there is a big penciled question mark and a scrawl that might be "Psych eval?" beside this entry). Several bruises around the head, limbs and body - the head lesions mostly consistent with being struck with a blunt weapon, other bruises seem to be randomly distributed.

"There is a lab report clipped behind the chart. A blood sample, taken around 2.30am, showed a high concentration of lactic acid and other metabolic waste products, along with unidentified large particles that appeared to be increasing in concentration even as the lab ran the tests. Average molecular weights of the unknown substance at the start and end of the process are recorded.

"The food offered was not so much breakfast as warmed-over dinner - casseroled meat that I couldn't identify between two slices of white

bread, a small bowl of custard that was mostly folds of congealed skin, and a large tumbler of orange juice. The smell and sight made his mouth water, and he made short work of it, leaving him a bit restored but still hungry.

..

"How it presents .. well, it starts with flu-like, feverish symptoms of general malaise, though even then, there are a few specific indicators. Head and spinal pains, muscle aches, delusions and cognitive oddities. There is a period of strong hallucinations, which fade. It's all downhill from there - breakdown of muscle and tissue, disrupted metabolism, various organ failures, paralysis and death - except in those rare cases where the disease suddenly breaks and the patient returns to full health. And we don't know why.

"HAV-3 is not only generally fatal, but has a number of peculiarities that suggest that it has been engineered for a specific purpose. However, Dr. Rickman's research has proved that it's not contagious by aerosolization, skin or body fluid contact, or any other known vector. Patients should be quite safe to approach.

"There is a history of CDC responses to this pathogen that we consider excessive. To be blunt, we have observed them in every case to isolate, execute, and destroy the bodies of infected subjects. In order to learn more about the pathogen, and because we believe these patients to have a chance of recovery, the Institute has decided to aid these patients to evade the CDC, and place them under our protection and close observation. So far we've had two fully recovered, unfortunately 11 fatalities, and as we expected, no instances of secondary infection.

..

"As per SOP, I've contacted the patient, given him a cover story, and advised him to leave the public hospital system and place himself under our observation. I can arrange for Intelligence to question him, within our medical research cover story.

"I certainly need to examine him properly and get as many details as I can about his possible vectors of exposure to the pathogen. That part is true.

"As far as I could determine, his symptoms are surprisingly little progressed - most likely, at a very early stage. But despite what I've told the patient, it may be necessary to move him to an inpatient facility as the disease does its work.

"For whatever good it will do. We have no cure or even a recommended palliative for HAV-3. Whatever treatment we try, it seems to direct its assault specifically to weaken that system of the body and combat our efforts. There's a measurable increase in morbidity and lethality of the disease just from taking the patient in to a care facility. Some of us would describe this syndrome as evil .. consciously evil.

..

"In 1997, a medical graduate student called Maysie Tullen at Baylor College of Medicine, Houston, began her thesis in epidemiology. She was interested in a series of disease outbreaks across the Southwest, intersecting in eastern Texas, that struck her as unusual in some way - how, we're unlikely to find out now.

"She began a program of re-tabulating original results, retesting samples on file, and field investigation in a number of East Texas towns. Her criteria covered decades of incidents, and diseases with a spectrum of recognized causes - St. Louis encephalitis, acute gastroenteritis, hepatitis C, ehrlichiosis, tularemia, hantavirus. Actually, the hantavirus is interesting in itself, with its origin in the region of Cibola - but, uh, that's not relevant right now. All of these diseases were sudden, mysterious in origin, and deadly, but apart from that, and geography, there was absolutely nothing to link them together in orthodox medical science.

"Her tests showed a pattern beyond anything she'd expected. Maysie Tullen's theory of a single, persistent causative agent - the Houston Anomalous Virus - broke down to at least four different organisms. In more than a dozen disease incidents over forty years, HAV-1 to 4 appeared as overlooked trace results. They weren't found in every test, but showed up in 54% of cases of emergency hospitalization, and 73% of fatalities. Two or three of the species would appear together, sometimes all four. Gene sequencing proved links between different disease vectors, across geographic areas, across time, that just shouldn't happen.

"I mean, maybe it's difficult for an intelligent layman to realize. St. Louis encephalitis is supposed to be spread by mosquitoes, hantavirus by mice, tularemia by dust from rabbit feces. Histoplasmosis is a fungus, for God's sake, and Norwalk is one of the smallest known viruses. Nobody even looked for a link between them. Since Tullen's work, we've found even wider involvement - certain strains of the 1986 influenza, plague outbreaks in the Midwest going back to the '30s, the Calinda Beach Hotel in Acapulco.

"The components of the cocktail themselves aren't related - they're wholly diverse branches of the viral family tree, as far as we can recognize them. HAV-1 is a cluster of closely-related aberrant caliciviruses, causing acute stomach and intestinal problems - colors you wouldn't believe, out of both ends at high speed - that weaken the patient generally and hinder treatment, especially application of drugs and nutrition.

"2 is a large, precisely targeted virus, a temporary immuno-suppressant. Certain forms of cancer can appear as complications, if the patient lives that long. 3 is something strange, big - almost on the threshold between a virus and a living cell. In some ways its behavior is more complex than either. It alters the function of both the cell nucleus and the Golgi apparatus, and it attacks particular tissues of the body in sequence, starting with the central nervous system. HAV-4, or Hepatitis G, seems to be another spoiler, causing temporary suppression and long-term damage to the liver functions that scrub toxins from the blood.

"Dr. Tullen spent the summer of 1997 inspecting medical records of small-town clinics, interviewing witnesses, sampling contaminated locations. Her notes from that period would be a priceless resource. It's deeply unfortunate that she didn't complete her thesis. After a severe illness in August to October '97, she failed the year, and in 1998 took up a completely different topic related to sports medicine. She may be in general practice now, somewhere near Beaumont, though her name only shows up occasionally in the local papers. We're lucky that one of her fellow students remembered her work and could guide us to some of her old notes. Her thesis adviser had a complete early draft."

[Transcript ends]

Sandman Schematics: Sandman Cyber-Gear

Jim Clunie

The man with glossy, greying ringlets seems very large, as he bends over the child. His careworn face turns away to the side, drawing the other's gaze across passage walls of rough-cut basalt, to objects piled in a corner - long strips of spruce, a paint-can marked with dribbles of congealed whiteness, a roll of drafting film printed with exact black lines, the heaped carcasses of seagulls.

The older man seems about to speak, as the scene bursts apart in a discordant electronic squeal and a spray of static.

Clear grey eyes open with instant calm awareness into semi-darkness, seeing the familiar walls of a shaft lined with gleaming black. Far above, a great fan spins, driving even the air-borne dust back into the pit, upon a young man held by white plastic straps to a clear slab of polycarbonate. A voice sounds through a speaker. "Life signs restored to Alpha function. At ease, soldier. Stand ready for reconfirmation." As the electrodes cradled around the crew-cut head come on line, the click of rifle bolts drawn back snaps through the space.

With sandmen working for human agencies, whether North American rogues in the Hoffmann Institute, Russian rogues in the Order of St. Gregory, or Mossad Enhanced Assets, further detail has come to light about the cyborgs' physical transformation.

The nanite-transformed beings known as sandmen have both general enhancements to their metabolism, body and brain, and entirely new body structures with abilities beyond anything human.

Starting Cyber Gear

The process of becoming a sandman includes the construction of a Marginal nanocomputer, including two slots of active memory, a high-speed storage area and a long-term storage area adequate for all common purposes. The sandman gains patterns (see below) for the Dermal Modification (Ordinary and Good), Improved Limb (Ordinary), Improved Optic System (Ordinary), Improved Skeletal System (Ordinary), Nanocomputer (Ordinary), Optic Display, Subdermal Comm and Time Sensor (Ordinary and Good) cyber-modifications.

The sandman's innate ability to fuse with computer systems duplicates the effect of a Subdermal NIJack. Her morphing ability can duplicate the effect of a Passive Data Slot (or form a receptacle for other small objects).

Sandmen do not have to pay 10 Skill Points to use a nanocomputer.

Installing Cyber Gear

A sandman acquires a new cybernetic structure by downloading a digital file of design parameters (a *pattern*) into her data storage, then directing her internal nanites to construct the device. This requires the use of a nanocomputer, even for devices that would not need a cybernetic controller if implanted into a human body.

Because every host's body shape, metabolism and genotype differs, and due to the very limited storage and capacity for central control available to each builder nanite, the pattern is more like a seed-fractal than a rigid schematic. Its successful completion demands a high degree of concentration, creativity and single-mindedness from the controlling brain of the sandman macro-entity.

The sandman must complete a complex skill check against Stamina - *blood music*, Resolve - *physical resolve* or Computer Science - *hardware* to install the cyber-structure successfully. One success is required for each \$500 cost listed in the *Players' Handbook* for Ordinary structures, one success per \$300 cost for Good structures or two successes per \$500 for Amazing structures. Skill checks are at a +1 penalty for Good structures, +2 penalty for Amazing structures, and an additional +2 penalty if the sandman tries to implant more than one structure at the same time. The sandman can make one skill check in a time period of one week per point of the structure's Size, or one skill check per day for items with no Size rating.

During this time, the sandman suffers a +1 penalty to all skill checks due to the strain on her system. The penalty is removed when the sandman has had sufficient rest and nourishment to recover from the ordeal.

Ordinary quality cyber-gear consists of modifications to the sandman's nervous system, flesh and bone. It requires only a suitable pattern, time and nourishment high in energy and proteins. If the sandman is supplied with at least one unit of secondary nanites per point of the structure's Size, she gains a -2 bonus to her skill check to construct the Ordinary structure

and to her Constitution feat check (if required) to avoid rejection.

Good quality cyber-gear contains organic (carbon-based) compounds, such as carbon fibres and plastics, that are not produced by the body naturally. These materials must be assembled by secondary nanites. The sandman needs one unit of secondary nanites per point of Size of the structure.

Amazing quality cyber-gear has components of micro-engineered silicon and various trace metals. These basic elements must be supplied in the form of *precursor fluid* and manufactured into components within the body by secondary nanites. The sandman needs one unit of precursor fluid and two units of secondary nanites per point of Size of the structure.

Cyber-Construction Results

If the sandman suffers 3 Failures on her complex skill check before accumulating the required number of successes, the installation fails, its pattern is corrupted and unusable, and the sandman immediately suffers 1 point of Mortal damage due to the ravages of poorly-controlled nanites. This damage cannot be repaired by a self-repair unit, since the deformities caused are encoded into the sandman's nanites until repaired by outside intervention.

Once the sandman has completed the required number of successes, depending on the total Size of cyber-modifications that she has, she may need to make a Constitution check to determine if her body accepts the modification. If this check is failed, the result is the same as for failure of the complex skill check. Otherwise, the structure is correctly implanted and active.

Cyber Tolerance

A sandman has a Cyber Tolerance score equal to her Constitution. This affects how many cyber-modifications the sandman's body can have, how easy it is to accept a new modification, and how her cyber-gear is affected by damage to her body. The sandman's nanocomputer does not count against her Cyber Tolerance.

Every time the character incorporates a new cyber-structure, mark off boxes equal to the Size of the structure. When she attempts to construct a device that would cause more than half her Cyber Tolerance to be filled, she must make a Constitution feat check to determine whether her body accepts the new structure.

Damage to Cyber Gear is handled as described in the Players' Handbook.

Table SC1: Cybernetic Structures

Structure	Size	Successes Required per Quality		
		Ordinary	Good (+1 checks, secondary nanites)	Amazing (+2 checks, precursor fluid, secondary nanites x 2)
Broadband Data Cable (External Neural 3D)	1	1	-	-
Claw (BattleKlaw)	2	2	4	8
Dermal Modification (BioArt)	-	1*	1*	2
Fast Nexi (Fast Chip)	2	2	5	8
Improved Limb (Cyberlimb)	2	2*	6	12
Improved Muscle (MusclePlus)	2	2	6	12
Improved Optic System (Cyberoptics)	1	1*	3	8
Improved Skeletal System (Exoskeleton)	3	4*	10	16
Nanocomputer	1	4*	10	16
Optic Display (Optic Screen)	-	1*	-	-
Reflex Wiring	2	-	6	-
Self-Repair Unit	2	2	6	12
Subdermal Comm	1	-	2*	-
Time Sensor (BioWatch)	-	1*	1*	2
Trauma Unit (ER Slot)	1	-	3	-
Wireless Data Connection (Wireless NIJack)	1	-	3	-

* Patterns provided to all new recruits

Cyber Gear Descriptions

See the Players' Handbook for descriptions and specific rules for the standard items of cyber-gear mimicked by sandman modifications (listed in brackets in Table SC1). Changes to Players' Handbook cyber-gear descriptions are listed below, using the item names in Table SC1.

Body Plating

Not available.

Broadband Data Cable

This structure allows the sandman to connect to large data networks and machine control systems of PL 5 as if his nervous system was a hardwired part of the system, rather than merely a remote terminal connection. All computer actions that would normally occur in combat rounds instead occur in combat phases. All times that would normally occur in hours instead occur in multiples of 5 minutes. With a successful Computer Science – *programming* check, the sandman can access the stored memory of the system as if it was long-term stored memory of his own nanocomputer.

CF Skinweave

Not available.

Claw

A Good Claw consists partly of permanent modifications to the sandman's limb and partly of patterns resident in her high-speed data storage. As an action in one combat phase, the sandman directs her nanites to reshape the claw to its full combat potential. She cannot use the claw in that phase, but can perform actions with other parts of her body at the standard +2 penalty for taking two actions in a phase.

Dermal Modification

The sandman can use this pattern to alter the colour of all or part of her skin, the colour, length and style of her hair, the colour of her irises and so on. This can duplicate the effects of BioArt, though sandmen usually employ this ability for more practical purposes. Because this is a chemical change, it takes longer and is more difficult than ordinary morphing.

Good Dermal Modification can duplicate exact skin and hair tones, greens and blues, fluorescent colours, or other pigments not natural to the sandman's own body. Amazing Dermal Modification could be luminescent, radiate in other spectra, or mimic the texture

(though not the other abilities) of unusual skin coverings such as reptilian scales or feathers.

Fast Nexi

Sandmen are an embodiment of the ailment known to PL 7 as cykosis and do not suffer further effects from the use of Fast Nexi.

Improved Limb

Ignore the *Players' Handbook* references to implanted computer gauntlets and weapons. Good and Amazing Improved Limbs require an Improved Skeletal System.

Improved Muscle

Good Improved Muscle requires an Improved Skeletal System. Amazing Improved Muscle requires both an Improved Skeletal System and an Improved Limb.

Reflex Wiring

Sandmen do not suffer cykosis from a Critical Failure of their Reflex Wiring.

Self-Repair Unit

All grades of self-repair units can repair the sandman's flesh or her cyber-gear, though they use resources separately for each function. Only a Good or Amazing Self-Repair Unit can repair Good cyber-gear, and must be restocked with 1 unit of secondary nanites when it is resupplied. Only an Amazing Self-Repair Unit can repair Amazing cyber-gear, and must be restocked with 1 unit of secondary nanites and 1 unit of precursor fluid when it is resupplied.

Subdermal Weapon Mount

Not available. A sandman can use her morphing ability to conceal a weapon weighing up to 2kg within her body, though it cannot be fired in this position. This is considered to be major reshaping, taking d4+1 rounds.

Trauma Unit

This unit employs PL 6 drugs and biological products, and must be restocked at a sandman industrial facility (see below).

Time Sensor

A Good Time Sensor includes solar and lunar calculator modules, a timed waking alarm and stopwatch. An Amazing Time Sensor includes biological telemetry for the sandman's heart rate, core temperature, blood pressure and blood gases.

Wireless Data Connection

This unit connects only to computer systems that are equipped with an infrared or microwave data port, and is capable of the usual things that could be performed by a unit connected to that port. Gaining full access to the computer system may require a Computer Science – *hacking* skill check.

Sandman Supplies

At least part of the sandmen's industrial effort is devoted to supplies needed to maintain their most potent forms of cyber-gear.

Refining

The sandmen's industrial base requires supplies of silicon and rare metals that are small in volume, but need unprecedented levels of purity. This requires a worldwide network of ore supplies, bulk refineries and specialist metallurgic labs.

Precursor Fluid

This viscous silvery general-purpose goo contains pre-refined elements and molecular-scale general-purpose building blocks that can be manipulated by sophisticated industrial builder nanite cultures into more specialised nanites, or into more complex (though still microscopic) devices. It must be manufactured and bottled in a clean room environment.

Second-Generation Nanites

All sandman nanites are based on virus-like proteins and other organic compounds. Second-generation nanites are a more advanced series of cultures that incorporate refined inorganic chemical elements. They must be fabricated from sterile organic solutions and precursor fluid in a clean room, using other specialised second-generation cultures controlled by delicate monitoring and feedback equipment.

Nanite Culture-Making

All advanced nanite cultures are subject to information drift and need to be monitored and re-seeded periodically. The sandmen also engage in ongoing research into improved nanites, better cyber-structure patterns, biological weapons and other lines of advancement. All of this requires even more precise lab equipment than industrial production, or the work of an *etoile*, whose

subatomic perceptions and microtome-sharp probes can work directly on nanite prototypes.

Sandman Secondary Nanites

This array of second-generation nanite cultures is relatively long-lived, able to survive in an altered human metabolism for many days, take direction from a sandman's nanocomputer and build both organic and inorganic structures. Secondary nanite cultures eventually lose their essential elements through degradation and leaching, and are broken down in the body, hopefully after completing their task.

A sandman whose request for access to Good or Amazing cyber-gear is approved usually receives a supply of secondary nanites and precursor fluid intravenously, at an outpatient visit to a facility controlled by the sandmen (such as certain departments of the Houston Medical Centre). Sandman medics provide later check-ups and support for the cyber-construction process, and deal with any consequences of failed implants. If unsuspecting humans also use these facilities, the efficient sandmen harvest any available medical waste as feedstock for their nanite breeder vats and advanced combat medications.

Fast Builder Nanites ("Diet Gatorade")

This is a specialised variant of normal sandman nanite assemblages, designed for extremely rapid development of mission-specific cyber-structures that are not expected to last long. The clear blue fluid is heavily dosed with protective chemicals, including vaguely platelet-like surface fibres that form a meniscus at any contact with air, allowing the fluid to be kept in a plain bottle and taken by mouth.

Bottles of fast builder culture look something like a soft drink, with a false logo to fool casual inspection and a number of warning notices in a language that appears to be, but is not Arabic. (This is a rationalised machine-readable code understandable to sandmen.) This substance is manufactured in well-established sandman enclaves in Texas, Algeria and northwestern India.

Each bottle contains 4 units of nanites, which allow the sandman to make Resolve – *physical resolve* or Computer Science – *hardware* checks to construct Ordinary-quality cyber-structures in a half hour for each week that would normally be required. One unit of fast builder nanites is consumed for each Size point of the structure. Cyber-structures made by fast builder nanites last for 6 hours before they become non-functional and are broken down by the body.

If a human is foolish enough to drink fast builder culture, the blue fluid, which tastes like a mixture of salt water and detergent, attacks the non-adapted body as an ingested hemotoxin with an onset of 1 minute and duration of 10 minutes. A small sip requires a Constitution feat check at +1 to resist, or a full gulp applies a +3 penalty. Damage is d4+2m (Critical Failure), d4m (Failure), d6+1w (Ordinary), d4w (Good) or d6s (Amazing).

Morpheotoxin

The sandmen's notorious "poison" is actually a specialised variant of recruitment nanites that migrates under its own power to the top of the spinal column and induces selective nerve blocking.

Sandman Schematics: Sandman Weaknesses

James Nostack

I'd Love To Go Swimming If the Water Weren't So Wet

In the *Dark Matter* text, the authors suggest that the Sandmen fear water because it shuts down their nanotech implants. Somehow, that doesn't make any sense to me. Nanotechnology operates on the atomic scale, and when you shrink down that small, you're not operating with conventional electrical current. The main forces affecting a nanite would involve organic chemistry, not electricity. Our own cells and DNA might be viewed as molecular machines, and taking a shower hasn't caused irreversible brain damage—at least, not according to my experiments so far.

I think a much more scientifically plausible weakness would be radiation. Any nanite capable of self-reproduction needs some kind of source code; our cells, for example, use DNA. Yet because of the size constraints, that source code would have to be extremely tiny: like DNA, it would be composed of intricate molecules that differ only the arrangements of a few atoms. Anything so delicate would get blasted out of recognition by any strong radioactivity. The effect on the nanite would resemble the effect on a cell: mutation.

Naturally, if you're a nanotechnologist, mutation is the worst thing imaginable. Nanites are supposed to be *eutactic*, a fancy Greek word meaning, "perfectly designed"—every atom is precisely where it has to be in order for the device to function. Most mutations would simply cause the nanite to malfunction or shut down, but there's always the chance that a compounded mutation could lead to very unintended side effects, perhaps culminating in a new phenotype. A good engineer wants a predictable design that's stable in the field, and the Etoile certainly wouldn't want an evolutionary struggle occurring among their servitors, so it makes sense to err on the side of caution. The Sandman Plague would require very strict error-checking codes, and other nanites would deliberately seek out and destroy any mutated copies in order to preserve the integrity of the source code.

What I'm leading up to here is that if the Sandmen get zapped by a hefty dose of radiation, it's possible that their own nanites would undergo mutations, and consequently destroy each other in some kind of auto-immune jihad. It's worth noting that the Grey Scout Ship listed in the *Dark Matter* book has an

"unshielded gravitic engine" that releases a major EMP field, presumably with a nasty gamma ray backwash. Maybe the Greys keep buzzing overhead not to make contact, but to sterilize congregations of Sandmen. They might have developed X-Ray Grenades, or perhaps the muzzle flash of various gravitic weapons has a similar effect.

(This also suggests another link between the Sandmen and the Nuclear Defense Shield. It also casts a strange light on the Cold War: the Sandmen build ICBM's and orbital rockets to threaten the Greys, who respond by telepathically encouraging nuclear arms-mongering.)

With all that in mind, I think water still makes a decent vulnerability from a game play perspective. If the bad guys are afraid to get wet, even a nasty thunderstorm can save the heroes, and a swimming pool could become a killing field. If some crazed cyborg ninja breaks into my room, I might conceivably trip him into the tub...but I probably couldn't lead him on a 5 mile chase to the dentist's office.

Sandman Schematics: *Sleep of Morpheus* and Stun Damage

Dale Thurber

Sandmen Thoughts and Ponderings From the Dark-Matter List

FX Spells cast on Sandmen

"Our occultist tried to cast "Sleep of Morpheus" on one of the Sandmen. There is no rule regarding the effect of the spell vs. Sandmen, so I made it up. I basically said that it was useless (seeing how they were transformed into electronic creatures) - essentially unable to technically "sleep."

I see sandmen as still being biological, just enhanced and controlled by nanites that can modify their flesh, if necessary, in seconds. They don't sleep as much as before, but still need to shut down and defragment the memory from time to time - it's just a limitation of the design.

The nanites would have to have some independent processing under the overall direction, or policy-making, of the brain.

So a *sleep of Morpheus* would still affect the living brain. However, if the sandman was in combat, it would have its nanites on standby for tissue repair, bodily enhancement and so on. When the sandman slept, the nanite dock's independent processor would detect that the body was in an inactive state, and assign nanites to try and repair it - maybe by rewiring brain cells to bypass whatever centers the spell triggers to cause sleep.

I'd say the sandman would go to sleep for a phase, but then would immediately start making Stamina-blood music checks to recover. That is, if it was in combat mode. If the sandman was enspelled when it wasn't expecting trouble, the nanites would accept the CPU's order to go to standby mode, and the spell would work normally.

"Next, I threw in the EMP grenades to try and balance the final combat, but the poor players didn't (remember/ bother?) to use them until they got way hurt. Which brings up another question. How would an EMP grenade affect a Sandman? I did the stun damage (d8+2s), but then didn't know what to do next, or for how long they would be "out"..."

Third, What effect does Stun damage do on a sandman? Knock it unconscious? I made this up too, saying the sandmen really don't go unconscious because they don't want to be caught. They would rather self-destruct then go

unconscious. So the players really had to extremely damage the sandmen, and it made them difficult opponents."

In contrast, humans just allow themselves to go unconscious, in the hands of an enemy who will certainly torture and kill them, or if their deepest purpose will be defeated? Not sure I see the distinction here.

Stun damage is battering, pain (conflicting damage signals), and shock that erodes the creature's ability to act in any voluntary manner. To me, it's not so much unconsciousness as being pounded until you can't force your brain and body to get up again. If a sandman's systems can be overwhelmed to the point of wound damage, then presumably they can also be stunned (temporarily shorted out) by lesser amounts of damage, and don't have any more choice in the matter than humans.

Think of the scene just before the ending to Terminator II maybe. Model 101 has stacks of damage reports through its cerebrum, gets its head repeatedly bashed, and its central power bus short-circuited. It shuts down. Doesn't matter how much it wants to save Sarah Connor, it physically can't function until it lays down for a while and runs its self-repair functions.

Don't forget that after two full rounds of being stunned, any combatant can start making Resolve-physical checks to recover. Maybe you could reduce that to one round for sandmen, and give them some sort of berserking bonus to the Resolve check.

If they'd rather self-destruct than go unconscious, that sounds more like a weakness than a strength. Along the lines of "a sandman that loses all its stun/wound points while in threat-engagement mode dies immediately".

Sandman Schematics: Repto-Borgs

Jim Clunie

Occasional UFO reports mention reptilian beings with cybernetic implants, especially optics and artificial arms. If one in a group has such gear, typically they all do. They seem to be a recognizable type: very tall (6 to 8 feet), with one red cyber-eye and sometimes a cyber-arm, highly advanced technology and personal knowledge, very persuasive. They are often sighted in small groups of 4 to 6.

They tend to impress humans as wise and advanced beings, despite violent or abusive conduct - even seduce women into consensual sex.

The Repto-Borgs are a very new development, arising from the sandmen's total conquest of the kinori civilization under the Ahaggar Massif in the Sahara. (This could also be the source of the even newer and rarer Greater Sandmen, through co-option of blackscale kinori hermetic science.)

The typical sandman virus doesn't work well on nonhumans, giving them a -4 bonus to their CON feat checks to resist. An etoile could create a kinori-specific version, and probably has in North Africa, which affects kinori normally but grants a -4 bonus to humans.

The kinori-specific infective agent is not as well perfected as the human version, and has side-effects, most noticeably rapid skeletal growth of up to a meter in height. This would double or triple a repto-borg's body weight.

A kinori that successfully recovers from the infection becomes a sandman with all of the abilities and characteristics of the species. His ability scores are modified as follows: STR +2, DEX -1, CON +1, INT +1, WIL -2, PER +0. He immediately gains the Computer Science broad skill, or a rank in Computer Science-*programming* if he already has the broad skill.

Because they're fitted out and equipped in one of the largest industrial facilities available to the sandmen (the other big one is Magnitogorsk, which makes some highly modified sand-warriors) all kinori-sandmen have an unusually high level of technology. A thermal optic implant is standard, as an adaptation for underground fighting. They are heavily armed, often with automatic weapons (similar to a 9mm charge SMG) or even personal laser weaponry.

Repto-Borg Game Data

STR 10 (11) (d8+5) Improved Arm +1
DEX 10 (2d4+5)
CON 10 (2d4+5)
INT 13 (2d4+7)
WIL 7 (d8+2)
PER 9 (d8+4)
Durability: 10/10/5/5
Action Check: 13+/12/6/3
#Actions: 2
Move: Sprint 20, Run 12, Walk 4
Reaction Score: Ordinary / 2
Last Resorts: 1

Attacks

Unarmed	12/6/3	d4s/d4+1s/d4+2s	LI/O
Hand Axe	11/5/2	d4+1w/d4+2w/d4+3w	LI/O
9mm	12/6/3	d4+1w/d6+1w/d4m	HI/O
Charge			
SMG			

Defences

+2 INT resistance modifier vs. encounter skills
-4 step bonus to CON feat checks made to resist toxins
Natural armour (Ordinary): d4 (LI), d4 (HI), d4 (En)

Skills

Athletics [10-11]-*climb* [12], *jump* [12]; Melee Weapons* [11]; Unarmed [11]-*brawl* [12]; Modern Ranged Weapons [10]-*SMG* [12]; Vehicle Operation [10]; Stamina [10]-*blood music* [11]; Survival [10]-*desert survival training* [11]; Computer Science* [13]-*hacking* [16], *programming* [15]; Knowledge [13]-*kinori language* [16], *specific human language* [15], *specific human language* [15]; Security [13]-*security devices* [14]; System Operation* [13]-*communications* [15], *engineering* [14], *sensors* [15]; Tactics [13]; Awareness [7]-*perception* [10]; Investigate [7]-*search* [9]; Interaction** [9]-*charm* [11], *intimidate* [11]

* The sandman's fusion ability gives a -1 step bonus to the use of this skill.

** The sandman's low-frequency hypnosis ability grants a -3 bonus to Interaction skills and allows the sandman to affect targets with Hostile attitudes. When interacting with kinori the sandman ignores the +2 penalty to use Interaction skills against targets of a different species.

Sandman Schematics: Greater Sandmen

Jim Clunie

The nanotechnology of the *etoile*, while wondrous to humans, is still limited in performance by the same laws of physics that we understand.

Somewhere on Earth, this barrier has been broken. Perhaps a coalition of *etoile* and assault-rifle-wielding Tuareg have subjugated a nest of blackscale kinori under the Tibesti Massif. Perhaps the *etoile* themselves have been brought to heel by greater powers from beyond. The result is a new breed of nanobots, inscribed

with miniscule runes and peculiar metals, and blazing with arcane power.

A Janizary has many of the abilities of a common sandman. It can also regenerate impact damage almost instantly (giving it both Good toughness against such weapons and a regenerative ability), reshape its body to a much greater extent and with impossible speed, and inject short-lived control nanites which hijack the nervous system of living beings.

Janizaries are often encountered with advanced heavy weapons (arc guns) and occasionally are trained in magical arts.

Janizary Game Data

STR 16
DEX 12
CON 15

INT 10
WIL 8
PER 10

Durability: 15/15/7/7
Action Check: 14+/13/6/3
#Actions: 2

Move: Sprint 28, Run 18, Walk 6
Reaction Score: Ordinary / 2
Last Resorts: 1

Attacks

Unarmed	18/9/4	d6+3s/d6+4s/d4+3w	LI/O
Grapple***	18/9/4	Special	
9mm Pistol	15/7/3	d4+1w/d4+2w/d4m	HI/O
Assault Rifle	14/7/3	d4+2w/d6+3w/d4+1m	HI/O
Arc Gun	16/8/4	d8+1s/d8w/d6+3w	En/G

Defences

+2 STR resistance modifier vs. melee attacks
+1 DEX resistance modifier vs. ranged attacks
-4 step bonus to CON feat checks made to resist toxins
Good toughness vs. LI and HI damage
Regeneration: Regain d4+2s (Marginal), d4+2w (Ordinary) or d4+2m (Good-Amazing) per round on a Stamina-*regenerate* check

Skills

Athletics [16] – *climb* [21], *jump* [17]; Heavy Weapons [16]; Unarmed [16] – *brawl* [18], *power martial arts* [18]; Acrobatics [12] – *dodge* [13]; Manipulation [12] – *lockpick* [16]; Modern Ranged Weapons [12]–*pistol* [15], *rifle* [14]; Stealth [12] – *hide* [16], *sneak* [18]; Vehicle Operation [10] – *land* [12]; Stamina [10] – *regenerate* [11]; Computer Science* [10] – *hardware* [14]; Knowledge [10] – *specific human language* [13]; Security [10] – *security devices* [13]; Awareness [8]; Lore [8] – *occult lore* [9]; Interaction** [10]–*charm* [12]

* The sandman's fusion ability gives a -1 step bonus to the use of this skill.

** The sandman's low-frequency hypnosis ability grants a -3 bonus to Interaction skills and allows the sandman to affect targets with Hostile attitudes. When interacting with humans the sandman ignores the +2 penalty to use Interaction skills against targets of a different species.

*** When the greater sandman achieves a hold on a target, it can make an overpowering attack in the following phase to implant a mass of controlling nanites into a target, gaining remote control over the victim's body. A greater sandman can control only one victim at a time and can have up to three victims implanted with controlling nanites at once.