

Earth



Figure 1: (Lindfors)

Earth remains the place where most humans live, despite a century of dangerous change. Old nations remain despite the tendency towards localization, the Immunities protect and ally larger groups, yet large areas are chaotic and filled with surprises. Many humans no longer feel at home on the planet. It is too alien.



Figure 2: Photo by Eran Brokovich for National Geographic News

The Earth

The Glaciation



Figure 3 (Mladen Penev)

The trend towards colder temperatures continues, with an average world temperature in 2100 2 degrees colder than in 2000. The planet is already deep into something similar to the “Little Ice Age”. This has produced various ecological and weather changes:

- The Gulf Stream is more easterly, making North Africa and parts of the Iberian Peninsula wetter while plunging Europe into a much colder climate. Frost fairs can be held on the Thames and Seine again.
- The US Midwest, North China and Australia suffer a serious long-term drought.
- Across Eurasia and North America heavy snowfalls often sweep in during autumn, winter and spring.
- Ice pack is spreading southwards in the Atlantic, impairing shipping.
- Glaciers are spreading again, and many mountains in Africa have developed permanent snow.
- Summers have become less dependable in the temperate regions, occasionally producing “winter-spring-autumn” years. The summers are often very rainy, leading to flooding.
- In south Asia the monsoon has shifted, with enormous ecological effects.
- The frequency of El Nino events has increased.

When the glaciation was discovered in the 2010’s, the strong efforts against greenhouse gases were proven to be counterproductive. Yet most people viewed a natural glaciation as better than the risks of trying to warm the climate. In addition, the risks of geoengineering and the lack of large actors willing to help also prevented any attempt to correct the climate. As more was learned about climate systems mid-century geoengineering simultaneously looked technically more plausible and politically less feasible.

Today there are serious concerns about climate stability. The spread of the Dragons has led to massive ecological shifts, including changes in planetary albedo and CO₂ levels. The dragon castles exploit enormous controlled algal blooms for energy, and they fix carbon. There is a worry that the dragons may take too much and plunge the planet into a deep ice age or even a snowball earth scenario. Communication via the Voices may have convinced the dragons to warm the planet; since 2065 releases of greenhouse gases from the Dracosphere has increased enormously. Unfortunately this might cause other forms of instability, and many climatologists worry that there might be too little coordination both between humans and between dragons to avert drastic change.

Ecocollapses



Figure 4: Erupting neogenetic bloom, Lincolnshire 2073.

The biological cataclysms across the Earth have left the biosphere in a fragmented state. First humanity industrialized, then an ice age arrived, then the dragons erupted followed by the immunities, the blight and other wild biotechnology. Many alternative biospheres exist, often interfering with each other. It is not uncommon that one causes breakdowns for others. In many places Earth is becoming dominated by opportunistic, weedy species or escaped Dragon ecology that exploit the situation. What one day is covered with a slimy algal mat may be bizarre fungoids the next day... until it gets eaten by swarms of insects with logotypes on their wings.

The ecological changes have increased erosion, producing silt-filled rivers that when they reach the sea cause massive algal blooms. These blooms have often become exploited by the Dragons, who turn them into useful biomass. While oceans covered by green dragon glop are hardly what any human enjoys, the alternative is worse: natural algal blooms sink to the ocean floor, causing massive eutrophic zones without any oxygen. In this respect the spread of dragon castles have been a boon: they can persist in such environments (indeed, thrive) and actually do increase oxygen levels while exploiting the easily available biomass.

Perhaps the most dramatic ecological shift (beside the total transformation of the equatorial ecosystems) was the Barrier Reef dissolution of 2079, when during the span of a few months most of the Great Barrier Reef dissolved as a result of an unprecedented dragon bloom. This may have been a Dragon attempt to replenish sinking carbon dioxide levels in the atmosphere and prevent further glaciation.

Some changes have been creeping but profoundly risky, such as the spread of invasive soil microorganisms. Soil productivity has sharply dipped in many regions, threatening both natural ecosystems and industrial biotechnology. Replacing the invasive microbes with "tame" ones has

often caused further problems, as many of the microbes desired in one Immunity are invasive in another.

Eco-TAGs are active nearly everywhere, looking for signs of problems. Before the spamocalypse nanosensors were common, but they were found to be too easy for dragons to subvert and contributed to the malign networking. These days simpler and more robust methods are used, including men and women on the ground.

The concept of nature has largely been abandoned. All life appears to have been seeded by the Dragons, the only way to preserve traditional ecosystems is to either keep them sealed or immunize them. Ecology has become engineering, aesthetics and politics.



Dragon zones

Dragon zones are dominated by dragon-altered ecology. Most are in the sea, where the dragon plasmids have easy reach. The most visible effect is the Dragon Castles, enormous constructions of cartilage-like substance, covered by complex and exotic ecosystems of symbiotic organisms. They have a very complex structure with internal circulation of water, nutrients and thick neural strata likely running the dragon consciousness. Surrounding the castles are algal bloom zones where photosynthetic organisms produce nutrients and energy to power the castles. Under the castle zone there are often extensive webs of coral- and cable-like trunks to other castles.

The Indian Ocean Zone is oldest and most developed Dragon zone. Its coast and islands are home to many of the Voices. Currently it is colonizing the remnants of India, turning the interior into a bizarre anatomical jungle sometimes referred to as the Brain of Kali. The Zone is communicative and expansive, maintaining various links to the Net and apparently absorbing enormous amounts of information. Its transmissions are far more garbled, but do relate to the current world in a way that suggests that very alien intelligence(s) are at the other end. It was these transmissions that started the Spamocalypse, and many consider the nuclear destruction of the Maldives Spam Arrays as the event that finally turned the tide.

The Caribbean-Amazonian Dragon Zone is one of the densest and most mysterious dragon zones. Stretching from the Louisiana swamps to the Amazon basin, it contains a sizeable fraction of all biomass on Earth. After the Spamocalypse monitoring has become hard, and a lush mythology has sprung up about its interior: everything from the predictable stories about Host voodoo houngans and biotech pirates to stories about renegade nanotech corporations hiding inside the Zone. There is certainly space to hide almost anything inside the bizarre tropical ecology that covers the region. Some Caribbean islands are believed to be inhabited by Hosts or Voices constructing biotechnological environments, and there are immunized refuge ecologies living in the Guiana Highlands. The US-Mexican biocontainment zone from Chetumal to Miami has created a long stretch of ghost cities, no mans land and defensive installations, sometimes mirrored by imitative dragon growths. The Aruba dragon castle is the largest in the world, covering the entire island, reaching a diameter of 25 kilometres. It is regularly capped by snow, and the structure causes noticeable effects on local weather.

In South America the Zone is being studied from the Manaus centro de control biológico, a major cluster of neogenetic research, applied immunology, ecotech and dracology. The Amazonian land castles have been surprisingly benign; they are having beneficial effects on the local climate that are counteracting the trend towards cold and dry weather that was threatening to turn all of the Amazon forest into prairie. The random recombination of tropical species has produced a vital, if alien, replacement jungle even in the worst affected areas.

The Pacific Zone is a large but disconnected region. It consists of isolated gigantic dragon castles on islands and guoyts, sometimes forming networks around an atoll. It appears to be introvert compared to the other zones.

Parts of the Mediterranean are immunized, but major dragon castles dot the region. An uneasy ecological balance has developed, and some fishermen have started to exploit the large-scale ecological changes brought by the dragons for ocean farming. The Zone constantly attempts new tricks to spread, giving the European and North African eco-security agencies much to do.

The small Champagne Zone is apparently under French control, or rather cooperates with l'Immunité (although persistent rumours claim that it is the reverse - the Zone is by now running France and through it the entire Immunity). It mainly consists of subterranean rhizomes and nodes, infiltrating the landscape rather than reshaping it.

The Heterogenous Zones



Figure 5: Biotech building (R&Sie(n))

In many areas, especially Africa and Asia, several different immunities compete in the same ecosystem. There are complex border zones, enclaves protected by homebrew immunities or ecodefenses, ruin cities covered with stable ecosystems from past struggles and entirely lifeless areas patrolled by machines.

Such Heterogenous Zones can be both fascinating and dangerous. The unstable judaslife jungles of Indonesia blend into the nagapartai biotech buildings and dragon castles. The Beijing nanosymbionts are vectors for spam. The Las Vegas Enclave houses some of the most hardened criminals on the planet.

North America



Figure 6: San Francisco hydronet (Iwamoto Scott)

The United States still exist as a formal nation, and many of its inhabitants are fiercely nationalistic. But in practice the US today is a loose conglomerate of states with a small and weak federal government retained mainly as a formality. Some of the states have built new identities like the neogenetic creolization of Louisiana and Florida, California as a romanticized internationalist enclave and Pennsylvania as a centre for fierce, militaristic Christianity. Some have strong orbital ties: Utah is the terrestrial side of the somewhat failed Mormon space empire and Nevada is more or less run by networks linked to High Vegas and PSD. Massachusetts was once a mess of climate refugee camps, but has now reinvented itself as a creative, virtuality-oriented society. Others have suffered massive dislocations or emigration; these days Montana and parts of Kansas are practically empty. In the south it dissolves into “Amexia” and “Nexico” across a broad cultural border.

Despite the dissolution on the national level the former US is not doing too badly. It managed to handle the transition to a regional patchwork with surprising ease, and remains a vital economy.

California is thriving. In many ways it is the last internationalist enclave on Earth, staunchly keeping traditional cryptographical and free market traditions. It maintains a spaceport at Vandenberg as well as numerous off-shore communities. It is a nexus for human enhancement projects on Earth. Here biodesigners use all available means to improve on the human condition

without the conservative mindset of the European immunities, the social strictures of the Three Saviors or the informal approach of the equatorial powers. The result is well-researched, solid body modifications that work in a variety of environments.

In particular there is a number of aquaform humans living underwater along the Californian and Mexican coast. The key aquaform center is the Monterrey Bay Life Institute, located on land, on an anchored artificial island and various underwater installations. The deepest, the Monterrey Canyon Installation, is built together with a small dragon castle.

The climate changes have made much of Canada unpleasantly cold, and severely hurt agriculture. The Midwestern dustbowl shows no signs of ending, often bringing duststorms into Chicago, New York and Washington. Various initiatives to bind the topsoil and introduce enhanced prairies have been attempted with various levels of success. The Panhandle Shortgrass Project claims it is succeeding in binding the dune fields with its artillery-launched biome bombs that splash the surface with water trapping biotech gel and seeds, but independent observers worry about the large-scale ecomonitoring networks they are setting up.



Figure 7: Texas (Miro Rivera Architects)

Large swathes of US lie abandoned due to climate change, migration to secure cities, smaller cities dissolving due to telepresence work and the wholesale migration to space. In direct contrast, many guilds and enclaves have set up shop in the middle of the emergent wilderness, relishing their physical isolation as a way of getting closer to the land. Offshoots of the Brothers of the Land are strong, including everything from neopagan ecologic mysticism and mild quaker communities to evangelical Christian cargo cults preparing the landing strips for angels.

Many Americans still hold grudges against the internationalists and especially PSD for “pulling the plug” on the old US.



Figure 8: Quartzsite, Arizona; Kazys Varnelis

Mexico is a regional power, dominating Latin America culturally. It is staunchly Catholic against the South American heresies. It has a number of powerful corporations (an uneasy mix of internationalist fluidity and Latin feudalism) that extend its power into North America and even Europe – Mexico has cordial relations with southern Europe and North Africa.



Figure 9: (Dionisio Gonzalez)



Figure 10: Neogenetic production facility, Boston.

South America



Figure 11: (Minsuk Cho / SCI-FI)

*A great nation is like a great man:
When he makes a mistake, he realizes it.
Having realized it, he admits it.
Having admitted it, he corrects it.
He considers those who point out his faults
as his most benevolent teachers.
He thinks of his enemy
as the shadow that he himself casts.
- Tao Te Ching, S. Mitchell translation*

South America is split between the Caribbean-Amazon dragon zone (and a sparse population of Voices in and near the zone), the Immunity of the Three Saviours and a loose Catholic/secular coalition trying to resist these implacable forces.

La Inmunidad de los Tres Salvadores (La Nueva Iglesia)



Figure 12: (Mondolithic Studios)

La Inmunidad emerged from the work of Santiago Ramela, one of the first generation hosts. An artist and bon vivant known for his eccentricities and wild parties, in 2034 he underwent a religious conversion and became convinced he had been given sacred powers to heal and transform the faithful. He rapidly turned himself into a messiah figure, followed by thousands. He used his neogenetic powers freely, empowering a number of apostles to spread his work. He clashed regularly with the traditional church, which he called “the obsolete church”: he was founding a new apostolic succession.

In September 10 2048 he and thousands of his followers were killed when a nuclear weapon was detonated close to the arena in Sao Paulo where he was holding a mass. The perpetrators of the Sao Paulo atrocity have never been identified with certainty. Some evidence suggests the Restored Takfir wal-Hijra, a mid-eastern terrorist network as a likely culprit. However, the Ramelite believers were eager to blame the Catholic Church, and widespread anti-clerical riots followed across Brazil.

At this point several persons claiming to be Ramela began to appear and do neogenetic miracles to prove themselves. While the outside world thought they were merely surviving apostles who had taken up their leaders mantle and appearance, to the faithful it was proof that Ramela was indeed Christ returned. On Christmas day 2048 three of the Ramelas met and held a large mass together in Porto Alegre. They confirmed that they were the same person and announced the start of the new, true church. Over the following weeks they ordained bishops and priests, instituting neogenetic sacraments and a massive word-of-mouth campaign to get people to join. The New Church promised protection from the Dragons that were erupting in the Amazon, health and a new social order. During 2049 all the other Ramelas disappeared; they either went underground, joined the church or might have been scared off.

The New Church caused tremendous political upheaval across South America. The authorities warned against it and tried to inform people about the reality of neogenetics, while the Catholic bishops preached against the new heresy. But to millions it was the only protection against the horrors of the Dragons. They could also see the objective benefits: people who partook of the sacraments became healthy, strong and smart. This made many people who were not convinced by the spiritual message willing to join – and as they became part of the Church they came to accept the spiritual side too. To outsiders this was a horrific example of neogenetic manipulation, but the social force was unstoppable. Attempts to stop it were met with massive popular protests, riots and in Colombia a wholesale revolution.



Figure 13: (Robert Smithson)

The Three Saviors were quite willing to amass enormous wealth and power through the New Church. This was used to set up an infrastructure of churches, missions, factories and hospitals using neogenetic technology (the “Loaves and Fishes Program” - PanPec) to provide for society. As time went on the PanPec system and its bioengineer priests were to form the industrial backbone of South America. Rather than take over political power directly, they made clear that they would allow people to organize their governments as they saw fit – an easy declaration since they had massive popular support, controlled key industries and wealth.



Figure 14 (Skyscrapercity)

Since the turbulent founding mid-century the Inmunidad has become one of the most cohesive and expansionist immunities. Missionaries were sent early to North America, Africa and Asia, netting a sizeable number of followers (these have tended to migrate to South America or to enclaves implementing PanPec). The priesthood is known for their lucid, non-mystical explanations, and recordings from the Saviors are widely distributed. Skeptics call it “the self help word of God”. Thanks to the social cohesion caused by taking the sacrament and the large number of Hosts integrated in society the Inmunidad is a neogenetic superpower.

So far the Saviors appear to cooperate well. Exactly what goes on between them remains one of the big mysteries of the world: numerous powers would give a lot to figure out the true dynamics.

The Inmunidad is preparing for the future. The Saviors do not pretend to know what is coming, but they plan to be on top of whatever it is. Their long-range planning, focus on local and resilient infrastructure and the strong civil society helped them a lot during the spamocalypse. But the Saviors are ready for far bigger events, confident that they have God on their side and the best contingency plans man can make.



Figure 15: (Samurai Cop)

The headquarters of the New Church is Ciudad del Infante Sagrado, a new city built on the shores of the Parana River in the Triple Frontier area between Paraguay, Argentina and Brazil. A showcase of modern Latin bio-architecture, arcology and religious design it houses most of the core administration of the Church and usually at least one of the Saviors. However, the Saviors tend to travel across their domain – likely a precaution against something like the Sao Paulo attack, but also reputedly to walk among the citizens as apparently ordinary men.

While the New Church has created an astounding level of social order thanks to its neogenetic control, there are always exceptions. A small but nasty guerrilla group is hiding in Patagonia. In the Panama region “eucharist smugglers” prowl, stealing neogenetically potentiated hosts to enhance bonded workers in their plantations. The organized crime network Sacra Corona Unita is thriving here and there, reputedly supported by the Vatican and orbital exiles with anti-neogenetic biotech.

Europe



Figure 16: Tarragona (Vicente Gualart)

In a little kingdom of few people it should be the order that though there were men able to do the work of ten men or five score, they should not be employed. Though the people regarded death as sorrowful, yet they should not wish to go elsewhere. They should have boats and wagons, yet no necessity to travel; corslets and weapons, yet no occasion to fight. For communication they should use knotted cords. They should deem their food sweet, their clothes beautiful, their houses homes, their customs delightful. There should be another state within view, so that its fowls and dogs should be heard; yet to old age, even to death, the people should hold no traffic with it.

- Tao Te Ching, Aleister Crowley translation

Well ordered, quiet and not terribly interested in the outside world. That is at least the outside impression of Europe. It is partially true, but the complex jigsaw of interlocking regions, nationalities and cultures humming away across the continent is involved in a surprising number of international and interplanetary ventures. Europe keeps a low profile, smugly convinced that it is actually the centre of the world.

Europe is essentially divided into two versions of the old EU, one German and one French. Within each block travel, commerce and culture flows freely. Between them there might not be formally any strong hinders, but in practice many of the flows avoid the border. The blocks are still entangled enough into each other to preclude any serious conflict.

The real divide is between L'Immune and das Immunität. While nationalists like to see it as France and Germany, it is more true to say that both nations are run by their immunities and the institutions around them. Das Immunität dominates in Germany, central and eastern Europe, while L'Immune dominates south and west Europe. The isolationist nationalists of Scandinavia avoid either.

L'Immune was the first immunity and decidedly crude; just effective and safe enough to protect the French population. Since then it has been updated and refined but the basic function remains unchanged: prevent neogenetic change of the organism that has been immunized, but otherwise keep everything the same (paranoids are of course claiming there are government backdoors). This precludes neogenetic enhancement, reshaping and healing but this might be a limitation most users do not crave.

Das Immunität is very similar to L'immune and has developed almost in lockstep. It contains a few slots for upgrades and lifestyle, but nothing too transhuman. Both European immunities have in later generations been extended with an online rapid upgrade system: immune plasmids are received at node stations placed in towns, and updated immune information is diffused from other nodes. This enables the whole immunity to quickly learn of an infection or hack attempt, rapidly immunizing itself.

Despite the past upheavals, the defection of the internationalists and the high costs of maintaining advanced infrastructure Europe is well-off and stable. While it might eschew the neogenetic technology of the tropics in favor of old-fashioned (but robust) hardtech, it is not behind the times. Unlike most other regions of Earth it maintains an interest in space and has a sizeable space infrastructure. Energy, orbital production, communications and safe insulation of neogenetic development are easily available without having to deviate too far from old culture.

France has developed various forms of direct democracy to run things; most people are contributing directly or indirectly in local polling guiding government decisions. Although this produces an apparently very obedient government the system works both ways: citizens are expected to be transparent and under the control of the state. Germany maintains a more traditional democratic system, but has also gone down the control path. While neogenetic loyalty hacks are illegal and regarded as deeply unethical, advanced social engineering and memetics are widely used to ensure social stability.



Figure 17: Mont-roig del Camp (Vicente Gualart)

Spain and Portugal are blooming, thanks to a changed climate and an influx of people, money and technology.

The British Islands tried to remain independent of the immunities of the continent, but with the flight of internationalists to space and the spread of Dragons into the Atlantic they had to relent. Ireland, Wales, England, Scotland and the Channel Islands now run a slightly modified version of l'Immunité. England has worked hard on climate-proofing its major cities, finally succeeding in climate controlling London, Manchester, Birmingham and Bristol. Seasteading and various forms of agricultural engineering production are expanding areas as the islands adapt to their Scandinavian-style climate.

Scandinavia is cold, isolationist and largely forgotten. Finland was hard hit by a Blight outbreak in the 2080's, much of the population migrating into the safer Baltic south (the current recolonization project is regarded across Europe as one of the most valiant and useless national projects ever). The Baltic sea is one of the largest immunized bodies of water and site for much German bioengineering. It protects Europe from remnants of the Finnish Blight and some arctic winds through the Gotland Barrier of particle-traps.



Figure 18: Kitka River (Ilkka Halso)

Italy is essentially a confederation of regions with minimal central government. Lying surrounded by the Dragon-infested Mediterranean it has a sizeable population of Infected, Hosts and even Voices although the main population is immunized. The Venice dragon-castle is a famous if slightly dangerous tourist attraction.

The ZBV, the Zona di Biocontenimento di Vatican, is an advanced nanotech diamondoid dome covering the Vatican and parts of Rome. Maintaining security from plasmids and other forms of neogenetic trouble it has also become a symbol for the bioconservatism of the Vatican. The Church has never been in favor of human enhancement, but was mid-century at least slowly turning moderate in its views. Then the heresy of Santiago Ramela occurred, bringing things to a point. As a reaction to the neogenetic practices of the New Church the Vatican turned strongly against neogenetics. Under Leo XIV the doctrine of substantial Imago Dei became established: artificial alteration of body or genome is inherently sinful (but there are loopholes: genetic selection is allowed if it is not exact, since it merely redistributes probabilities). As the main church turned staunchly bioconservative an increasing number of liberal Catholics have turned Episcopalian.

Russia, already suffering from the climate, did not handle the neogene well. The country divided into a loose federation not unlike the US, with a number of minor republics squabbling over bureaucratic formalities. Isolationism and downright luddism is common, as many republics refuse to allow any form of biotechnology yet suffer from the effects of lacking immunity.

Africa



Figure 19: Zaha Hadid's Abu Dhabi cultural center

Africa is split between l'Immunité, Iyë-iyānu, Maponyo and the East Africa dragon zone. While living standards in Sub-Saharan Africa are markedly up thanks to biotechnology and distributed manufacturing the political situation is enormously fragmented and contested. This area is not so much developing as diverging.

North Africa is flourishing. The influx of climate-migrating Europeans helped the economy, the climate turned friendlier, then many Arabic biotech companies moved to the region just in time for the Immunities to arrive. That the Mediterranean sea is a Dragon Zone is a minor matter. Alger is a high-tech bridge between Europe, the Muslim world and Africa. Libyan wine has finally reached the point where even French connoisseurs accept it as equal to the ancien vintages.

Maponyo was the first immunity to be developed outside Europe, most likely through the work of an unknown host somewhere in the inland of Kenya. It is also known as "Moto ni moto" (from "Dawa ya moto ni moto", "The medicine (i.e. antidote) for/against fire is fire"). According to a popular story it was a gift from a wise man living on the slopes of Kilimanjaro, who gave it to the people with an admonishment to share. It has spread widely thanks to migrant "medicine wanderers" who spread the immunity, perform minor miracles and teach the tenets of Maponyo.



Unlike the European immunities Maponyo does not limit the potential of the node. Instead it slowly grows, turning people into Hosts over decades. The result is a much safer development than the normal Host infection, but it also produces a large number of experienced Hosts with solid social standing.

Maponyo is common in the south and east of Africa, but it shades into Iyë-ìyanu along the middle.

A key concept is Umoja (unity): as long as everybody and everything is suffused with the medicine, it is safe. Leaving anybody or anything out weakens the protection. This is also translated into a progressive social action; in South Africa much of the early spread was done by the Marxist-open software penguinistas as they undermined the conservative African National Party government.



Iyë-ìyanu (“Miracle” in Yoruba) is the second native immunity of Africa. The Iyë-ìyanu was, like the South American immunity, tied to social control. It allowed users to recognize each other and tended to increase their oxytocin levels when in contact, triggering pro-social behavior and loyalty. It was not intended to enable any Host abilities, but tended to give a limited amount of self-modification and healing. It was also highly susceptible to “command plasmids” that could be released by the controllers of the immunity.

It first began to spread in Nigeria in 2050 but rapidly became popular elsewhere. It was eventually found to be distributed and under control from a group of scientists at Obafemi Awolowo University in Ile-Ife. This group, first calling themselves Project Palm-nut and later the House of Expansion, had developed the immunity (with the help of an allied Host) as a way of ensuring themselves security, wealth and power. The discovery led to a struggle as the Nigerian authorities tried to take control over the project, imprisoning the scientists and placing the immunity under the control of the government. Using the immunity as a bargaining chip president Yusuf Lukman began an ambitious process to centralize power and extend Nigeria’s reach. His ambitions triggered a race to sell immunities in West Africa between France and Nigeria (with occasional attempts by the Immunity of the Three Saviours, mainly successful in South Africa). In the chaotic interior Iyë-ìyanu clashed with the Maponyo.

The ambitions of president Lukman clashed with practically everybody else. Despite international sanctions and support for groups resisting him he built up a “greater Nigeria”, the first neogenetic police state. For 12 years he succeeded in keeping everybody under control. The sudden coup 2065 took him by surprise - modified plasmids were spread nationwide, former allies turned on him and the apparently peaceful and loyal population showed a far nastier face. Unfortunately, when the control of Lukman was broken, it did not end the struggle. Freed members of House of Expansion and former allies of Lukman soon set themselves up as local rulers. Since then the Iyë-ìyanu has been a network of squabbling mini-states employing questionable social control.



Figure 20: Ficus hut (arborsculpture)

Some consolidation occurred in the 2080's and 90's. In particular groups using the Maponyo established alliances between the mini-states. The emirs of Kanem-Borno allied themselves during the liberation struggle with Kenneth Udoma, a young human rights campaigner from an internationalist background. Udoma had acquired the Maponyo and was distributing it and a claytronics-based cryptoinfrastructure as an "antidote" to Lukman's government, discreetly supported by the international community. He played a key part in the overthrow (and by now the popular stories about him make it seem he almost singlehandedly did it). The Free Borno State, led by president Udoma, made itself an indispensable go-between in the region. In 2091 it finally succeeded in establishing the West African Co-Prosperity Sphere.

In Kongo the Matonge Immunity emerged in the 2090's. A new immunity, it claimed to free people from the Ijÿë-ïyanu and to enable more rapid control over neogenetics than the Maponyo. It was used to free the Kinshasa Republic from its odious leadership, but turned out to be an even subtler form of oppression. Users are "edited" and become happy, pro-social and efficient – not unlike the Immunity of the Three Saviours, but without any religious content and with vehement denials that there is anything odd going on. Nobody really knows who is behind it, but it is clear that it organizes people (and the biosphere) according to some plan. The region seems to be mobilized; everybody is contributing to various projects for setting up a bio-infrastructure like the South American one.

The African immunities have been widely exported into the heterogenous zones. There are noticeable Nigerian colonies in China, the US, Latin America and central Asia, and Maponyo witch doctors crop up in the most surprising places. Sometimes these immunity colonies gained noticeable power, such as the Afrix Movement in Nicaragua or the immunity/neogenetic corporation Thabeet-Zawose Services Inc active across Asia. In many cases they have been the subject of resentment and even attacks, but they seem to be gaining ground in the heterogenous

zones. Unlike the other immunities they are not tied to supernational groups, making skeptical people more willing to join, and they offer tempting possibilities of social control, freedom and neogenetics in fragmented societies.

East of the Ethiopian plateau, the Great Rift Valley and along the Red Sea is the dragon zone: mile after mile of dragon castles, supply ecology and bizarre “experiments” ranging from bacterial ponds to lakes of organs. Here and there communities of Voices live, especially in the dragon-encrusted ruins of coastal cities. Mogadishu and Dar es Salaam are known for their sizeable Voice population and often regarded as their “capital” – this is where dracologists and diplomats come to try to communicate with the Dragons via the Hosts. “Old Mog”, the NERD base in Mogadishu used for the first futile attempts to contain the Dragons, remains the gateway to the Zone.



Figure 21: Abandoned biodwelling in the Ethiopian zone (Daniel Dociu for ArenaNet, Inc. and NCsoft).

Sahara is home to vast energy rectenna farms receiving power from orbiting stations, isolationist arcologies and high-tech nomads living a peculiar mixture of traditional lifestyle and modern interface work.

Some places have become neogenetic design clusters. Sankuru (in the former Democratic Republic of Kongo), Kigali (Rwanda), Maritzburg (South Africa) and Accra (South Ghana) have become dynamic biotech cities, rivaling anything seen in South America and California. Large numbers of Hosts and biotechnologists invent and shape living technology for export or local use. While Maritzburg and Kigali have reputations as open, safe and internationally minded places, Sankuru is often called the “dark neogenetic heart of Africa” – the labs here are on the cutting edge of hacking immunities, brains and dragon blooms and apparently willing to sell whatever they create to the highest bidder. On São Tomé a local Maponyo cult is working together with Três Poderes (a New Church layman organisation) and Humware Polifónica (Colombian-Venezuelan neurotech company) on a secretive project aiming at true human understanding – their early releases and spin-off technologies such as animal linguistic patches and empathy supercharging have aroused much interest.

Asia



Figure 22: (Samurai Cop)

Middle East



Figure 23: The Caliphate Immunity logo.

The Dragon eruption was a disaster for the Middle East. Up until that point the green renaissance around the Gulf, internationalist investment in Arabic biodesign and the sequestration of the most militant elements into isolationist states had brought peace and growing prosperity to the region. As the Dragons erupted outside Socotra, the Arab peninsula was the first to experience

the horrors of dragon infestation. Yemen was quarantined; the Red Sea ecosystem collapsed (and the Suez channel was blocked) and internationally minded people began to flee the region. The local nations clashed over how to solve the problems they faced, borders were closed and militants of all kinds began to flourish.

The Caliphate immunity is a lightly tweaked version of l'Immunité (so as to avoid any accusation of biological colonialism) introduced relatively early. It is a no-frills immunity that does its job. Nevertheless it became a symbol of a regional resurgence (hence its name) and spread widely. Unfortunately it has not helped the region recover as much: the middle east and east north Africa remains one of the most isolationistic and splintered zones of the planet. Arabs in the Diaspora and internationalists Muslims have with limited success tried to open it up again, but are faced with a nasty array of entrenched local powers, surveillance states and extreme paranoia.



Figure 24 Lebanese arcology. (Victor Ramos)

A recent development is the spread of "biological apostasy". Dissatisfied citizens switch to the Iÿë-ıyanu immunity. This gives them neogenetic powers, but often involves at least a mild form of religious apostasy or heresy since the Iÿë-ıyanu has strong animist overtones. Most governments are extremely negative to this development and are pursuing apostates widely; this has led to clashes in Sudan and elsewhere.

Israel is one of the isolationist nations. Refusing the immunities, it is essentially a series of massive, well-defended arcologies with very little contact with the outside world.

India



Figure 25 Indian dragon growths. (Mondolithic Studios)

The world has a bad conscience for India. While the Arabs were hit first, they had a chance to retreat. The breakdown of India into civil war, neogenetic epidemics and biowarfare is one of the darkest chapters of the 21st century.

The failure of the monsoons would have spelled massive disasters just a few decades ago – but after the Betrayal of India the depopulation of the region has made it moot. These days India is largely covered with hardy dragon castles. There exist a few colonies of humans protected by immunities and technology trying to make a stand by recolonizing the subcontinent.

Central Asia

The central Asian steppes are home to some of the more unusual remnants of the space movement. The Baikonur Republic was a pet project of PSD and became site for some of the biggest launch complexes of the 2040's. It is estimated that at least 40 million people migrated along the "star bridge" to orbit. These days most of the laser launchers and nuclear plants are mothballed. The Baikonuri are under the thumb of PSD, but the relationship is symbiotic: PSD wants to ensure it has a few voices and installations on Earth, so it cannot afford to annoy the people too much. Instead it bribes them with advanced technology, energy and access to space.



Figure 26 Embassy biodefense surface. (Philip Toledano)

The Baikonur republic has a far greater population living in embassy areas than the number of real citizens. This was due to a trick of PSD, seeking to ingratiate itself to various diasporas. They sponsored the opening of arcologies formally declared embassies on the steppe, bringing in refugees from India, Indonesia, the Philippines and many other places. In particular Indonesia ended up with a sizeable population in their embassy. The embassies are inward-looking and isolationist. They are largely self-sufficient, screen all incoming and outgoing information and avoid any form of biological contact. They are very firmly controlled societies.

The dissolution of Indonesia did not remove some of the security agencies. BAKORSTANAS remained, becoming a subversive network attempting to destabilize the "renegade" successor nations and restore a unified government. Over time it slipped more and more into criminality and network crime, and would have become an ordinary crime organization before long. Ironically, it was saved by the Dragons. As the threat expanded the organisation by luck and some skill managed to insinuate itself into the central Asian embassy project. It is debate whether PSD knew of the infiltration and tolerated it, or whether BAKORSTANAS outwitted the megacorp. In any case, loyalists were soon installed in key positions in the new embassy-arks. Over the span of a generation Indonesia was reunited again, in practice if not in name, as the arcologies came to be run by the network.

Kazakhstan still resents its western neighbour, and does what little it can to complicate life for the Baikonuri. At the same time they have serious problems of their own with bioweapons let loose by the paranoid former government to prevent refugees crossing into the country (such as the infamous "Botox Grass Wall"); far too often they have to request OTA assistance in burning off parts of the steppe.



Figure 27: Kowloon Walled City

China



Figure 28: Chinese sea-village (Dionisio Gonzalez)

*When the great Tao is forgotten,
goodness and piety appear.
When the body's intelligence declines,
cleverness and knowledge step forth.
When there is no peace in the family,
filial piety begins.*

*When the country falls into chaos,
patriotism is born.
- Tao Te Ching, S. Mitchell translation*

The breakup of China created a patchwork of more or less workable states. Some were tiny, like the Dam Republic which was just the Three Gorges Dam and a military force holding it, others were standard states. While places like Guangzhou and Shanghai had international connections the inland soon succumbed to isolationism.

This got worse when the Dragons arrived – refugees from the coastal regions began to flood inland and some of the coastal states used their strength to forcibly annex land to retreat into. In the case of Shanghai it led to the annexation of Anhui in 2050 and in 2052 the conquest of the Wuhan Republic, forming the Yangtze Republic with capital in Nanjing. Various neogenetic infections also followed the migrations, making many inland polities ready to enforce deadly quarantines. Even within the same polity travel is often restricted.

The Sichuan Republic has done well; isolated from the coast it quietly profited from the chaos by selling weapons and equipment. The internal struggles between the city-states gradually abated as the Chengdu military gained in power, slowly removing its rivals and instituting a military republic. The current president, Zhao Yongkang, holds the republic in a firm and ruthless grip. Although Sichuan supported Wuhan, it now has normalized relations with the Yangtze Republic. The main problem is climate: increasingly cold winds and blizzards descend from the surrounding mountains, weakening agriculture and often disrupting communications. The government is also keen on controlling “genetic aberrancy”, and is instituting a neogenetic eugenic policy. It is deeply paranoid about outsiders bringing in infection or subversive memes.



Figure 29 Soldier from the Renewed Small Sword Society.

The Yangtze Republic is powerful and ambitious. The republic is working very hard on acquiring all technology needed to become totally self-sufficient in all areas. While it officially keeps good relations with Sichuan it clearly has westwards ambitions. This has made the tiny Dam Republic a key piece in a sensitive military and political situation. The Yangtze ruler, general Du Rudai, is known to be exceptionally harsh and willing to use any means if it suits his views – he came to power thanks to his development of a neogenetic “monster army”, and he was the man behind the ill-fated but useful Sleepless Army.

Guangzhou was much less successful than Shanghai in gaining control over the inland. After a long and bloody conflict with various hill polities the situation is now finally calm. The Pearl River Delta is lost to the Dragons, but the Guangdong Republic remains in business and probably is the most democratic of the descendant states.



Figure 30: Beijing "defensive arcology" (Giacomo Costa)

The Beijing Alliance early on started a number of “preventative” military actions across the Chinese Plain against Shanghai. Unfortunately the cost was high, and after the Anhui annexation the alliance began to break apart due to refugee streams and serious famines. This led to a devastating civil war 2056-2066, the “Dust War”. At the end only the Beijing Republic remained standing. It had managed to get some international allies and in particular access to reliable immune technology (unlike the often risky homebrews of the other republics). It is a corporativist bureaucracy trying to maintain the local ecosystem in the face of Blight, snow, erosion and ecocrashes.

Antarctica



Figure 31: Antarctic base. (Philip Toledano)

While early colonization attempts in the 2040's failed due to lack of funding, a few isolationist communities ("unicorns") have since the 2080's set up bases. Many are illegal but very hard to find, protected from the elements by a thick ice layer or by being undersea. There are persistent rumors that PSD has a secret base somewhere in Antarctica.

South Georgia is home to the King Edward Point Arcology (also known as Grytviken and New Kolkata), an enormous biotech arcology constructed in the 2040's by the WEEE Consortium. Originally intended as a safe refuge from the Dragons, it became a gathering point for the Indian diaspora. Over the next 6 decades KEP has expanded, covering the arctic valleys with diamond and biotech climate control ceilings, filling the interior with a dense and lush pseudo-Indian environment. While formally under British law, KEP is a de facto Indian territory and since 2076 even house the Indian Parliament. Thanks to the close ties to India WEEE is able to claim various resources on the subcontinent and has gained profitable reclamation contracts.

Oceania



Biotech islands quickly went out of favor after the Socotra incident and the spread of dragon plasmids, but are returning in new forms. The first adopters were the Voices, who constructed floating dragon castles in the Indian Ocean. Similar designs soon arrived in the Indonesian archipelago thanks to the Nagapartai and then spontaneously grew in the Mediterranean and Caribbean. Californian bioprospectors “tamed” these islands and are now growing islands for clients in most oceans.

There are persistent rumors that the Voice of the Dragons are expanding worldwide with strongly altered human aquaforms. At least one abyssal drilling operation has been discovered in the Pacific, where heavily altered Voices use imported deep-sea drilling equipment to link deep lithosphere ecosystems with the dracoshere.

Japan



Japan has been depopulated (“temporarily evacuated” is the official line). The orderly evacuation left behind a sizeable number of coast guard, civil engineering and ecology people as well as enormous robot warrens for keeping the islands working. Certain national treasures are still maintained and kept perfect, defence installations stand ready to deter any looters or immigrants, mothballing systems preserve infrastructure and entire cities under nanofoam. Still, most of the landscape is eerie and overgrown with abandoned cities slowly crumbling. Outside the big infrastructure projects and the robot patrols, there is nobody and nothing.

A slow trickle of Recompiled have settled in Japan, mainly maintaining the neogenetic defences in case the Dragons would try to absorb the national biosphere. There are also small communities of people who refused to move. The two groups have little to do with each other: the Recompiled may be the next generation of Japanese, but they are also culturally much more orbital than the true nationalists living in the mountains.



The Home Islands housed several institutes of higher learning (or the virtual components thereof). There is also a sizeable military presence, which resulted in some AI training facilities being sited there. As the Spamocalypse occurred this policy was rapidly changed. There is still major military presence, but it avoids using any too advanced software and hardware. The old AI facilities have been repurposed into neogenetic research.



Figure 32: (Dionisio Gonzalez)

Australia



Figure 33: Photo by Michael Cook. "Looking into the bottom of the William B. Rankine G.S. wheelpit from the Rankine tailrace".

Australia had time, resources and space to handle the Dragon crisis. People moved inland, quarantine zones were established and outback arcologies were constructed. When space began to look like a serious option the Woomera launch site was re-opened with internationalist money and turned into another escape valve from the planet.

The Australian government never went for the radical migration option of Japan, but helped set up moonbases. Thanks to this Australians are the second most common nationality on Luna.