Your guide to the largest sea steading megacity on Earth



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Welcome. We know why you are here.

Every day, you walk the streets and try to find logic in what you see. Need amid glut. Relentless destruction of the global natural resources that keep us alive. Hot money slashing around the world's financial markets, creating wealth without material benefits. Clinging to outdated technologies, protected by powerful economic interests. Everywhere, that unwillingness to face the facts.

You have been told that yes, there are imbalances and market failures, but There Is No Alternative. Mature capitalism is the only game in town. But you cannot quite bring yourself to believe it. We are the Science Fiction Economics Lab, and we feel like that, too. You are in the right place.

Welcome to Witness - an open-source fictional world. This world is different from other fictional worlds, in that it pays a lot of attention to its economies, and makes its economies radically different from the one we live in. The culture of the Witness has passed through several stages and varies between its distrikts.



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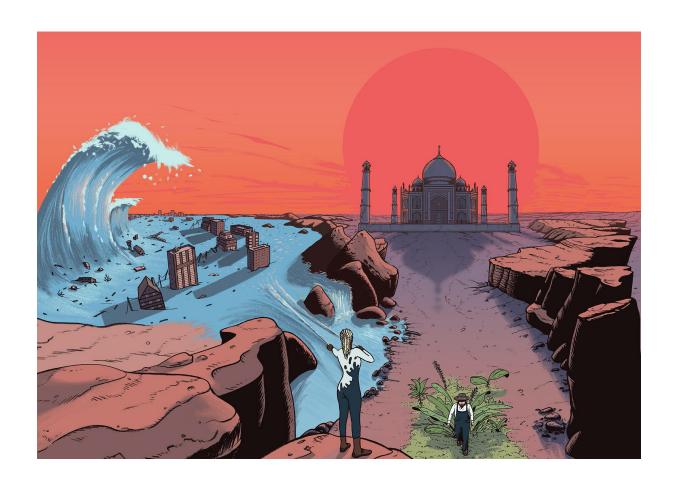
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Introduction

Different economic systems, one floating megacity: introducing Witness

Witness is a giant floating city on planet Earth. It does not exist in reality, but it could. Witness grew far beyond its original physical and legal bounds, and today is considered the cultural, financial and media capital of the post-Sundering world.

About the Witness world

A laboratory for humankind's future.

Witness is a collection of artificial islands floating on the ocean of a climate-ravaged Earth, but more than that, it is a collection of possible futures for humankind. While deeply interconnected, each of Witness's habitats, or "distrikts' is guided by its own unique philosophy and outlook. You might think some of these distrikts are paradise, and you might think others are a dystopia. But on some level they must all find a way to survive the challenges of an uncertain world.

Which future will you choose?

Assembly

Working together, our collective can achieve anything - if we feel like it.

Born out of the fandom of an electro metal band, the Assembly is the ultimate anarchist collective, with no need for archaic, centralised structures that place power in the hands of a few. Instead of taxation, there is crowdfunding. Instead of banks, there is a form of socialised blockchain. The Assembly maintains a state of permanent peaceful revolution, where each individual is expected to be a polymath working collectively for the common good. But issues that can't summon public interest are at risk of neglect.

If everyone pursues their passion, who will deal with the most boring dangers?

The Covenant

Monastic life for Industry 4.0.

The Covenant is an enormous floating monastery, and in terms of economic productivity it outstrips Witness's most intense industrial collectives and its most laissez-faire capitalists. The Covenants fraternities and sororities are inspired by the Benedictine tradition, working to bring themselves closer to serenity, and to ensure the economic sustainability of the Covenant itself. The wealth of that work



goes not towards the owners of production, or to be parcelled out piecemeal among the workers themselves, but to the ultimate glory of God.

It's a system built on the faith of its citizens- but what if that faith is tested?

Hygge

Providing for everyone's needs, no matter how much bureaucracy it takes.

On paper Hygge gets everything right - and Hygge makes sure that everything is down on paper. Every citizen has their basic needs met- accommodation, power, water, food, healthcare. Nobody goes without. The economy as a whole, thanks to prudent public investment, shows steady if unexciting growth.

Hygge is stable and prepared for every foreseeable eventuality- but can they adapt to unforeseeable?

The Dandelion Republic

From each according to what the algorithm says is their ability, to each according to what big data says they need.

The Dandelion Republic was founded to answer the question, could the omnipresent data gathering of early 21st century life be used for something better than generating wealth for capitalists? Citizens' purchases, travel, online browsing and social communications are tracked by advanced algorithms to predict individual needs and broader distrikt-wide trends, while surpluses are identified and distributed fairly among the populace.

The algorithm keeps the Dandelion Republic fair, but where does it get its idea of "fair" from?

Libria

In this libertarian paradise the best government is no government at all.

Libria has no government, and the distrikt's extremely thin book of laws are exclusively concerned with the respect, protection and enforcement of individual and corporate property rights. These are enforced by Libria's Watchmen, to prevent theft, violence, fraud and breach of contract.

In Libria the social contract is precisely that- not something handed down from the government, but something agreed between individuals. Infrastructure is managed through a mix of start-ups and corporate monopolies. Industries are regulated through the invisible hand of the market.



But are there rights more important than property rights?

Avantgrid

A society of survivalists, loners and hermits living out in the woods- alone, together.

Budding off the side of Witness's collection of high-tech floating cities is the archipelago of Avantgrid, an artificial wilderness designed as a playground for rich game hunters. Today it is a survivalist's paradise, its thick forests scattered with isolated log cabins governed by a loose live-and-let-live consensus. There is very little here in terms of infrastructure, manufacturing, economy or power generation, but everything produced here gets used, reused and recycled.

This is a paradise for rugged individualists- but what happens when they need to band together?



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The History of Witness

Witness is a giant floating city on planet Earth. It does not exist in reality, but it could. Witness grew far beyond its original physical and legal bounds, and today is considered the cultural, financial and media capital of the post-Sundering world.

The Most Populous Seasteading MegaCity on Record

Witness is the most populous seasteading megacity on record. Initially developed under Project Viking¹ (which gave birth to other noted cities such as Byzantium and Vivarium), Witness grew far beyond its original physical and legal bounds, and today is considered the cultural, financial and media capital of the post-Sundering² world. Doubly so since it both anchors itself to semi-stable landmasses and produces new ones of its own: it is therefore a navigational landmark in this post-climate-change reality.

Whereas most other Project Viking cities³ operate as a single territory overseen by a single government and State Machine, Witness operates as a collection of interdependent Distrikts that function de facto as city-states in their own right. Each city-state is an implementation of a particular set of economic, philosophical and moral social contracts, although some aethnographers have pointed out the phenomenon of boundary bleed (which is almost unseen in other cities)⁴. Between the Distrikts runs the Migrant Train, a zero-cost solution for citizens who wish to live under a different social contract. While the State Machine of Witness is de jure overseer of all territories, in reality it manages only portions of infrastructure, guides multi-distrikt disaster response, and policing in instances where inter-Distrikt conflict seems imminent.

The Founding

"As with all great cities, much of the founding of Witness is lost. What remains are skeleton logs preserved in machine memory, wrapped in a cocoon of half-myths, apocrypha, and clashes between rival historians. Move three districts and the stories change. On such a

⁴ The theory that portions of the populace along the boundaries of adjacent states approach either temporary compatibility or conflict, and often oscillates between them depending on the relative sizes of the populations involved. See also: coasian bargaining.



¹ 2

²

³

tenous sea we are now adrift, and it is up to us to make sense of it." -- Andromache Kosovitch, Aethnography: The New Histories of Our Times, the Library of St. Benedict

The general consensus is that Witness began as an experimental habitat conceptualized during the Post-Plague Years by one Jonathan C. Denton, an official of some import at an Old-World entity known as the United Nations. Denton, by his own admission, was involved in a collaboration between a group of private technology corporations and a sub-branch known as UN-Habitat; the goals of this collaboration were to launch twelve floating cities that could weather climate change, support a substantial population, and serve as highly mobile support stations for areas ravaged by rising sea levels and erratic weather.

Often referred to in recovered public news archives as Project Viking, the collaboration led to both advances in design and the development of a number of modern technologies, including what we know as the State Machine and the Ramos Harvester.⁵ Initially criticized as "techno-futurist doomsday bunkers", Viking became a key point in the affairs of the Post-Plague Years.

Denton, however, became increasingly disenchanted with the utilitarian design of governance for these cities. His earliest writings explored the alternate theories of one T.M. Scalon, a philosopher who proposed a way of living based on mutual recognition of wrongness⁶. Along with the architect Minette de Silva, the economist Rohan Kapoor and ten others ⁷, Denton marshalled resources and participants for a thirteenth city, designed in a far more modular fashion: the city of Witness⁸.

"There's a way forward and they're too blind to see it. Will need to show them."

and the etymological link between "see", "show", "witness" and the 42nd Entry:

"From Google:

have knowledge of (a development) from observation or experience. be the place, period, or setting in which (an event or development) takes place. be a sign or proof of (something); serve as evidence."

The entity 'Google' is unspecific: it seems to have been both a noun, a verb and some kind of

⁸ Scholars such as Kosovitch have advanced the claim that Denton chose the name out of spite, pointing to the famous undated 2nd Entry in the Old Manifesto:



⁵ Partial public data trails of Project Viking, recovered primarily from the Exodus of New York, indicate the successful launch of Byzantium, Vivarium and at least three other cities.

⁶ What We Owe to Each Other, T.M. Scanlon, archive unindexed

⁷ Given how drastically different names are put forth in different sources, some suggest the Missing Ten are apocryphal. Other scholars point to the more realistic construct of a power struggle and history being written from a particular narrative standpoint.

all-knowing entity: some technological scholars theorize would have been accessible at the highest levels of the United Nations, while aethnographers frequently connect it to the similar construct of the Oracle in mytho historical records from much earlier in history, suggesting that at recurring periods our ancestors have worshipped the same knowledge-giving entity, or different entities with extremely similar functions.

Digital Technologies in Witness

Witness's digital technology landscape is a loose federation of different technical standards, business models, and political theories on the role of digital technology in society. On the one hand, network externalities favor a single system serving Witness as a whole. On the other hand, different Distrikts engage in constant efforts to bend their technology infrastructure to play roles that they see as beneficial for the Distrikt. Such efforts are regulatory, to provide oversight over the various layers of digital technology systems; techno-political, to embed the Distrikt's values into the hardware and software themselves; and market-facing, to steer the outcomes of market competition in directions seen as beneficial by each policy maker.

History

Project Viking's original plan included a Witness-wide digital network, managed centrally and rationally, whose main purpose was to provide input to the State Machine and distribute its output. This infrastructure was mostly up and running when Witness launched. During Denton's tenure, it kept being expanded and improved.

The Zero-Day fracture that shaped Witness as we know it today was driven by, and amplified, deep rifts in the judgment on Denton's contractualist approach. In the early years after the fracture, the newly established Distrikt authorities lost no time in claiming technological sovereignty, each setting a course to its own vision. This did not, and indeed could not, happen in an orderly manner, given the convulsive pace of political, demographic, and societal change in the immediate aftermath of the Zero-Day fracture. For many Distrikts, the ambitions of a technology infrastructure fully consistent with the purposes of their respective societies were realized only partly, as a result of political compromise, technological hacks that barely work, and just plain throwing one's hands in the air and declaring defeat.

However, at the lowest level, all protocols and most of the cables and antennas are still in place. This means that all computers in Witness can technically talk to each other. The degree of integration, of this network of networks, as in the pre-Sundering Internet, is the result of countless interoperability decision (build a silo vs. federate), some made by the Distrikts' authorities, some by private actor.



Sources of inspiration

The striving for digital sovereignty of the different Distrikts in Witness is inspired by the notion of the splinternet and its connection with notions of national sovereignty.

Hygge's attempt to regulate foreign tech companies is inspired by the idea, popular among European Union Internet policy geeks, that the EU is a regulatory superpower, with the clout to mitigate the worst of the societal effects of Big Tech. The EU's General Data Protection Regulation is often quoted as evidence that the EU itself could indeed play this role.

The government-issue digital ID dominant in both Hygge and The Assembly are a reflection of being familiar with real-world digital IDs as they function in Estonia (you access both e-government services and your bank account through your government-issue digital ID) as opposed to Belgium (you access e-government services through your government-issue digital ID, but your bank account through an ID issued by a private consortium of banks plus Microsoft).

The idea of a digital currency linked to government-issue digital ID, as found in The Assembly, comes from Kim Stanley Robinson's novel *The Ministry for the Future*.

The dual Internet of The Covenant is inspired by the vision outlined in Peter Watts' *Rifters* trilogy.

FAQs

Replies by Yudhanjaya Wijeratne and Alberto Cottica

1. What was Witness like before it developed into a metaverse? Why do the distrikts in Witness look and work the way they do today?

This started with the Edgeryders call saying that we want to be interested in building worlds that explore economic structures. So the spec, if you think about it, is we want to be able to explore multiple economic structures. And we want to have interaction enabled between them. Citizens have to be able to transfer from one to the other, because otherwise, it's far too easy to come up with say a totalitarian state that nobody can really escape from because there are armed guards and so on. And we really wanted economies that are viable because they actually work for people instead of locking people in with guns and armor. That was the first sort of narrative constraint.

So we decided to set this on ... the initial concept note was something called Extremist Town, which had basically five districts on a floating city. And the floating city setting was selected for one specific reason. When you are on land, if you're imagining a post climate change



future, there's a lot of potential for people to move away. And if they don't want to cooperate, they don't really have to because we are land mammals, we are quite well adapted to the land. However, on water, it's a different thing altogether.

On water, resources are constrained, on water, cooperation matters. And we see this in international maritime law, for example, where ships are obliged to stop and help each other if one is putting a distress call because we are not well adapted for water. So on water, it's a matter of survival. So putting these little cities together on the floating water body inherently constraints and makes humans work together. So it came out of this concept note of five different districts which had some very basic stuff. There was like incredibly basic Libertarian economy there. There was a very Romish, sort of Republican thing going on. There was a vague attempt at a Greek democracy. And one thing that featured was a migrant new train.

Again this narrative construct that took the form of a train traveling between all these regions allowing people to transfer from one to the other if they found it unsatisfactory to the lives that they believe they should be leading. So there was free transfer. None of these districts were inherently constraining or limiting people by just keeping them there. The first question was maybe we should have more things holding people together. There has to be more reason. There has to be more infrastructure. And from that was born the idea of politically neutral construct that would constantly harvest energy, the harvest division that was exactly at the center of this floating sort of now ring shaped set of city states, sitting exactly at the center, parceling out equal amounts of energy to all these.

And that they made sense to set that up because if you want to come in and imagine economies, and if you're primarily coming in from that angle, you may not in that initial run want to think about, "Well, how is this economy going to be powered? Who is going to keep the lights on? Will that replicate the same structures that we see in the world today?" Those questions might be answered later, but in order to give that certain narrative freedom to go, right, we have energy and we have people to do this with, now let's explore an economy and we have the bare minimum of energy required to make most of these ideas work. So, that narrative conceit was brought in. That's the harvest energy division, which is famously politically neutral and a famous landmark for navigation in Witness itself. And then the districts themselves start evolving.

2. Is this idea of the migrant train and this concept of people freely moving from one district to another realistic? Isn't a reason we have migration policies is to avoid too many people in one economy?

This is a kind of malthusian argument. It doesn't really hold water. We've known this over 100 years. There are never too many people for an economy. The more people you have, the more the production capacity of economy is boosted. So in practice, this notion of absolute scarcity does not really work for sufficiently complex ecosystem and general assumptions about natural capital.

And you could always assume that, of course, this being a floating city, land is limited and so on, but in reality, the central narrative conceit here is that people are self-selecting into these



different states, into these different social contracts, because they believe that this is how the world should be. So there is no real incentive for many millions of people to suddenly transfer from one to the other. In fact, that's not really what happens as Alberto pointed out, even in the real world. However, there is value to having an open borders policy because you actually then do prevent the construction of societies that rely on totalitarianism to function, because those kinds of economies are easy to set up. The North Korea kind of economy is very easy to set up, put a bunch of people with guns.

This reminds of something a colleague recently told me. He is a sociologist and studies the LGBT community in Europe, especially migrants, notably in Germany. He found out that migrants to Germany, they seem to be migrating mostly in search of a greater tolerance rather than economic reasons that was his initial assumptions, so to speak. And so he did find out in the real world a mechanism similar to the one that we imagined for Witness in which people choose the polity based on the world view that the polity and culture is more resonant to their own rather than economic advantages per se.

This also happens but less than we might think, even when you look at the migration towards developed countries from developing countries, a lot of the time, this is a last resort kind of endeavor. You are in Eritrea and you are looking at an indetermined duration military service or migrate, then of course you're going to migrate.

But even then most migration is between developing countries. You just move to the next one over, which is not as terrible as your own, but you don't necessarily try to go to Japan or to Luxembourg because the GDP is highest there.

And now you also have this constraint of these economies because when people have the ability to migrate from one to another, we can constantly ask ourselves if we have an economy that we plan to bring in here, we can first ask ourselves that question, but why would people want to live here? Which is important because we are trying to also create structures where people genuinely want to live. We are deliberately trying to avoid recreating the kind of dynasties and the kind of structures that we have in many countries in today's world, where people live horrible lives. And we also don't form the kind of unique quality expressed here.

Now, for example, I'm from Sri Lanka. I can't travel to a lot of countries. There are only a handful of countries that will give me a visa on arrival. In fact, to come to Italy, as I was complaining to Alberto. To visit Italy, I have to send in documents, such as my birth certificate, my mother's birth certificate, all financial records of everything I own, bank statements for the last six months, they had even listed debt certificate in there somewhere, employment contracts, signed letters from the employer saying that I have leave to actually travel, find copies of all the finances of the company that I'm working for.

This is to get a visitor pass. This is not even to go live there, but this is to go see what it's like. And we really wanted to imagine a much fairer world where that fundamental question actually applies. If we are bringing this economy, people can freely move. Why would they want to live here? So the pressure is now on us to imagine a city or a state where people can actually live and people want to live.

This is the novelty and strength of the idea of the migrant train in Witness. You put together



certain things which are common things, resources, energy, and people, and with the people, you make them empowered because they have agency. They have the agency to choose what kind of social contract they want, what kind of economy they want to live in without having to renounce the fact of living together in that specific island. There's no one that is throwing them out to drown.

It's not an episode of Survivor. So then when we had these five on the table, quite obviously, then we started looking at the economies and various criticisms like, this economy is fundamentally similar to this. How about this interesting idea instead? So it grew from five to, I believe we now have six, seven in the works which are radically different compared to the original map that was proposal that came because of debate around this kind of question of why would people want to live here? This doesn't seem that good. This is kind of vanilla, and this is boring and this is what we already have. Or why would people want to live here? This just seems horribly oppressive.

So out of these questions, we started actually coming up with ideas that completed radical economies. And we wrote this in, now this act of bringing in economies, as you've now been through these different districts, we wanted to also give them the political weight and the narrative reason for existence because in the real world, change does not come about magically. There is always a history of it. There's a history of agitation. There's a history of descent. There's a history of changes and policy and all these things that come into it. So we designed this fictional history as these different districts and their social contracts started becoming more and more clear to us.

Every time we had a certain amount of clarity on how the economy of a particular region would function, we would go, "Okay, how do we now plug that into this political history in a way that seems true to how we know humans behave?" So for example, the Covenant, and the Assembly, and Libra actually were born out of dissatisfaction with the very committee led structures that were originally in place in Witness. And these chunks broke away because one bunch of people wanted a more anarchist state to themselves where they were not disenfranchised.

They did not have to go through the whole credentialism that was involved in actually being a functional player in the governance of this region. Another group wanted free markets. They wanted the ability to prove themselves and the value of their lives by actually proving it on the market. And it is as close to Night Watchman State as you can get and that's Libra. So all of these things rose out of real world pushes for these different types of economies. We've often taken real world movements like the punk movement, which has always been closely aligned with the anarchist movement

We've taken that and used that as a narrative vehicle for weaving that into the political history. We've taken Pike and his ideas of deregulation and woven that in into the fictional sort of history of Libra to show how dissent emerged against these systems and how these things evolved. So as a result, every one of these districts has a political history that plugs in. And as a result, Witness itself has a history that starts with, okay, very bureaucratic, UN funded floating city, goes along.

A lot of people seem disenfranchised because instead of starting out with the perfect hand selected group of population, it actually had to take on a lot of the workers and a lot of people



who were hanging around when it was launched, because it launched almost on the verge of a climate event. So it had to take on a lot of people who were not supposed to be there in the first place. These people really didn't like that they were now under a political structure. They can't swim out, they can't jump away, they can't walk away, it's the ocean. They're now in a political structure where they have no control.

So from that dissent, you have what is called a zero day fracture. And that's how everyone in Witness type sort of uses dates now. It's like DC and AD, but the zero day fracture is such a momentous event in Witness history that people change the time system to match that. That fracture is when the first major district broke away, shortly afterwards, other districts started breaking away, and shortly afterwards, this international committee forced multi stakeholderism model began to shrink and make way for other economies as and when people proposed them and as and when public opinion came to support them.

So from that dissent, you have what is called a zero day fracture. And that's how everyone in Witness type sort of uses dates now. It's like DC and AD, but the zero day fracture is such a momentous event in Witness history that people change the time system to match that. That fracture is when the first major district broke away, shortly afterwards, other districts started breaking away, and shortly afterwards, this international committee forced multi stakeholderism model began to shrink and make way for other economies as and when people proposed them and as and when public opinion came to support them.

3. Are there animals on Witness? Sounds very much like Noah Ark kind of metaphor for the 22nd century or something like this...

I know there are seagulls but here's the very honest answer, I haven't thought about the ecology and haven't thought about the zoology and we know there's wheat crops for example. We know that definitely there are going to be seagulls because there were seagulls in one of the images that I did for Haig, like one of those buildings. But thankfully, we now have people who are very interested in ecology and asking these exact questions and going, "Hang on a second, it looks like you kind of half assed the biological thinking here," and we've gone, "Well, yes actually, how about you do it?" And they've thankfully responded and gone, "Yes, we want to do it."

Another good example is the media ecosystem. You'll notice that in these Witness entries, there's not much talk of how the media ecosystem works. And that's the nature of world building because we build one piece at a time. And our focus was essentially on getting the economies up and running and real. And then the political histories, the topology, and looking at industry and production and how these things happen and a loose part of the social contract.

So now, thankfully others are coming in to plug the gaps. We have someone who's gone, "Look, I'm interested in media. I've been doing this for a very long time. I want to think about how media works here." And there's potentially an interaction that will build up in the future



because one of the people interested in ecology is thinking about a very meta state that is where citizens of this supposed meta state shirk notions of physical distance, because they're communicating purely through cyberspace. They don't have to deal with meet space issues. And there is potentially going to be an interaction between these two and maybe there's going to be a new district altogether being born. So we are now seeing that slowly happen.

4. Everyone theoretically can travel with train and decide where to leave, but do they really know? And how do they know about what is going on in the other Distrikts?

That's the question of the media and the question of is it biased or mediated in each distrikt. There is a certain narrative that is built about the other district, or is there some common view, or people can just plug in any kind of whatever, radio station or media or TV from the other district? And actually all this is accessible to everyone. Therefore, everyone can consume.

And how do districts trade with one another? This is something we faced in the assembly where it has this decaying currency that prevents you from hoarding but also prevents you from being poor. So nobody can be poor for an extended period of time. Nobody can also hoard money. But then how does this trade with the sort of mass market economies going on next door in Libra? And we've looked at, for example, Freetown Christiana, which started out as this very hippy anarchist colony that is now facing increasing commercialization due to tourism, basically.

And now its gone and changed ... parts of the assembly at the edges are now changing. And they're not necessarily a pure version of one model or the other. And it's these edges where interesting interactions happen. So what do those edges look like? As we start prying and asking ourselves more and more questions, the world becomes more real because we are interrogating it, we are poking holes in it and where we know the holes are, we can patch it up.

4. What is the future development of the economies in Witnesswill some of the distrikts eventually merge?

Can some of those economies spill over to other districts even if they keep their own identities and for example, separate economies, but still spread geographically across the different distrikts?

There is a poet economist who runs around describing the economies of these places- its based on Alberto but gender swapped and fictionalised.

Witness really is a thing that exists in four dimensions. Now we are considering the whole of the time dimension. So it doesn't have a future per se, just different values of a T. This is not completely resolved, but I think what we are trying to do is we are trying to depict a sort of meta stable state. So initially there was Witness, the UN project and Denton was in charge and institutions had been designed from the top.



Then we had a moment of chaos and readjustment and messiness and districts broke out. And now we are in this now of current Witnesspedia entries, we are in a state of relative quiet. These districts have moved out and they have asserted themselves and are starting to cooperate and to compete a bit to specialize. So we are in a period in which of course things are changing, but not so much that we can't say something about the structure of Witness as a whole.

And why am I interested in this? Well, I am interested in this because remember why we are doing this in the first place. Okay. We have different motivations. The two of you are authors and I can hear the storyteller in your question, Giuseppe. Well, how does it all end? Wow, of course, that's the main question for you guys. Me, I'm sitting in the real world at the beginning of a new story, which is the twin transformations, twin transitions. Now we are supposed to change. We're supposed to become something else. And I'm trying to imagine, "Oh, what is this something else? What is it going to look like?" And I don't think it'll look like one thing. I think it'll look like many things.

So in Witness, what we have is we are following different threads that are diverging, but at the same time, they are fairly harmonious. And again, in my lifetime, I have seen this in Europe. I have lived in a Europe that was two economic systems. There was an iron curtain bisecting Europe in two, and you've had whatever, kind of state socialism, whatever you want to call it on one side and you had advanced capitalism on the other side. Trade was restricted, but not impeded completely, migration was restricted, but not impeded completely. This is where possible cultural exchange was definitely happening.

Alberto Cottica:

Common institutions, bring them on, CERN, EURATOM, you name it. And so these two economic systems coexisting, in some sense, they work together. And that was the world I grew up in. I would personally like to see more economic creativity from here on in the real world so that we can explore different avenues, not necessarily because one avenue will win it all. And now everybody's got to be a solar punk or in aqua libertarian or a new cooperativist, whatever, but because maybe there is space for all of this. And if it were there were space for all of this, with the world equivalent of Yudha's migrant train on Witness, then we would all be more free as individuals. We would be able to choose our polity and a way of engaging with economy in a way that suits us.

The situation during the Cold War, it's still very territorially bound. You had certain countries which had territorial continuity, you had nation state or whatever you want to call it. And this was contained, and you had several patches of these across the world, but it was like territory continuity. One hypothesis is that what we are heading to in the real world, is a multiplication of the system. We've been hearing a lot about the coupling recently, especially considering what is going on with China and the United States. And this makes me think that maybe the new way, the 21st or 22nd century of the version of things that you were experimenting back in the '80s before the fall of the Berlin Wall will be something even more complicated in the sense that maybe the physical geographical continuity will not be needed.

And then we might have different systems, different economic systems and different political systems coexisting in the same space. Like your concept of choosing your polity, but you still need to take the train and go to the other district. What if you can choose your own polity



from your room just like you would change a subscription to a different provider for anything like you do now? Either you are subscribed to Netflix or to Amazon Prime or both. What happens if this kind of subscription system that we are seeing developing in many services would leak into subscribing to an economic system or the others, or to a polity but still being able to live in the same place?

That would be very interesting to see because you'd also have to contend with physical social networks. And we often see that like effects of homophily are incredibly powerful, and this is something I study with access social network data and so on. And you often see that people hold morals and social contract values that are the result of the physical networks that they're born into and that they function in. So I'm a little bit skeptical on whether we can have perfect virtual subscription. However, I agree that if such a thing were there, more people would be far freer to experiment.

A while ago, I was thinking about how would we make Witness more realist? And I was thinking, well, if we wanted to, we could anchor it on a land mass. We could set it in a slightly climate changed Europe where everybody has agreed to come together. They've set up the city to deliberately test these different economic systems and to see if these things will work out. And that's one way of doing it, maybe at some point a [inaudible 00:26:12] may be necessary, but it's important to sort of understand that Witness is a lab and it doesn't necessarily have to be. Like the future is not probably going to turn out to be floating cities on a completely climate travel world.

Yudhanjaya Wijeratne:

Floating cities are theoretically still ... practically is a bit iffy. Theoretically cool, practically bit ... But Witness is intended as a lab. And the reason the ocean is around it is to impose a constraint, a condition that these people cannot leave and they have to work together. And they have to settle their differences as amicably as possible. So what would they do then? So think of it as real people put into laboratory conditions and each of them have now to live under these systems and see how they actually interact.

Alberto described it even better, he described it as I think, a dictionary of possible economic systems. So that if you want to imagine, if you are in the real world, you want to reach out and imagine what the future might be like and what real-ish people and what kind of real-ish political history might be built around such a thing, flip the page, go right, this thing, I want to see this thing, how might that work? Oh great, they're going to have massive agricultural self-sustainability problems. And here's potentially how they got from that. It's a lab.

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5. How is Witness useful to writers and artists, and why?



From my selfish perspective, I'm thinking of, you see that a lot of science fiction and fantasy authors don't think about the economics of their world. And that's not as a result of they don't want to, but often you see even something like Robert Jordan's Wheel of Time, I'll give you one of the most important fantasy series ever created. There is no real economics there. It's just gold, silver and that's it.

From an author's perspective since you write and I write as well, from a very selfish perspective, this would be a fantastic way for authors to go, "I want to construct a world that has this kind of society that I imagine in my head." And now you can flip to this and go, "What kind of economy would be required to maintain and sustain that kind of social contract that I have imagined?" You might have dragons, you might have cyber clones running through the streets, but now you actually have this set of thinking that has been interrogated, that has been beaten on forums and people going, "What the hell is this?" And it's actually survived those tests.

There are two kinds of world builders. People that build the world as it goes on the way during the story and those world builders who are planning everything beforehand. And you immediately put yourself in that camp of the people that likes to go deep into the world, go deep into the iceberg. All this traveling that we did with the others in each district, it was like traveling inside that iceberg and seeing the different facets of that space, of that huge mountain.

You can see just the tip of it, but everything is important. Everything is functional. And that's like more from the storytelling perspective. But then coming back to Alberto also to conclude more from the economist perspective, from the political lab perspective, from the using of science fiction more as a tool for real world application, this is extremely rich experimentation that is going on, it's keeping on and it's continuing.

The reason for that I believe is that if you start tweaking with the economy at a sufficiently deep level, when you hit onto things like value theory, like what is it that we found valuable? And eventually you end up in considerations about human nature, and let's never forget that economics was born from moral philosophy and that Adam Smith's other magnum opus that he considered his real magnum opus was the theory of moral sentiments.

So at the end of the day, if you want a different economy, you really need to ask yourself these two questions, what it is that makes people tick and how can people cooperate effectively? And so you will end up into institution design. This is inevitable and it has of, by the way, echo in economic literature, especially in the nobler economic literature, which is not simply again tweaking of the neoclassical marginalis model, but people like Churchman. Reading Churchman in development economics, this is super clear in which really they have to ask themselves, is it better that people are guided by interest or passions? Because passions they sound good, but maybe, remember passions started all these holy wars and Jihads and stuff like that.

Interest is a bit more, the sweetness of commerce. And so maybe there's less war when people are more self-interested and they have all these kind of different ideas. Churchman himself was advising for all his life to evaluate development projects. So this is a very concrete field analysis kind of work that he was doing by the way for the World Bank. He was saying, "You guys are bad at spotting the unattended benefits. Benefits are coming up where



you're not looking for them." And he thought that one of the main benefits that an initiative could have is to build institutions. That was his main North Star, so to speak. So of course you end up in political innovation. Now, I'm not particularly good at that, but I completely recognize the need and the connection is very strong.

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In fact, we've actually ended up in philosophy even on this, like the question of how knowledge systems are broken and how do we make them more inclusive, led us to ethnography. But the question of what would an honor code based around solid economic thinking and incredibly robust risk analysis led us to risk Bushido. So we actually started coming up with these philosophical systems that kind of supplementing, interact with, and modify agent behavior, I would say, in this kind of world that we constructed.

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Distrikts

The State Machine has partitioned Witness into Distrikts, with each Distrikt implementing a social contract that fits its population.

Welcome to Witness!

Witness is the most populous seasteading megacity on record. Initially developed under Project Viking (which gave birth to other noted cities such as Byzantium and Vivarium), Witness grew far beyond its original physical and legal bounds, and today is considered the cultural, financial and media capital of the post-Sundering world.

Navigating Witness

There are many ways to begin your tour of Witness. To understand how this city came to be, and to dig into the political mosaic behind it, explore the <u>history of Witness</u>.

Fancy a more physical tour? Hop on the Migrant Train and visit one of the Distrikts below to read about how they operate, how they came to be, and what they look and feel like to live in.

| Name | Established | Population |
|------------------------|-------------|---------------|
| <u>Hygge</u> | 0.5 0D | 20-35 Million |
| <u>Libria</u> | 0.5 0D | ? |
| The Covenant | 7 0D | ? |
| <u>Avantgrid</u> | ? | 20-35 million |
| The Assembly | 3 0D | 10 Million |
| The Dandelion Republic | ? | 700,000 (est) |

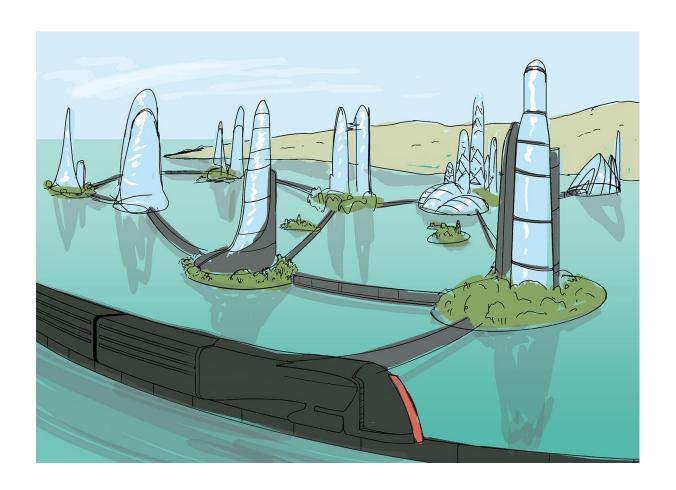


Whatever you find most intriguing - be it anarchist-communist societies with auto-decaying currencies, or a life of faith and community, or the ultimate libertarian paradise, you will find it here.

But this article (your humble tour guide) only knows so much! We will keep this place updated as new areas of Witness are come into being and are written about. Perhaps you yourself will discover many things that we do not know, and come back to tell the tale.

Enjoy your visit!







The Assembly of People

The story of the Assembly begins with CTRL + ALT + REVOLUTION.

The Assembly of People (abbrev. Assembly, formerly Distrikt 5) is a key region within the city of Witness. Originally a microDistrikt, it has grown significantly since its inception, and has become a notable hub for the performing arts - including music, and, for some reason, magic. It is often described by citizens as an anarchist state, and sometimes derided as "the hippie central of Witness".

Scholars, however, described it an offshoot of Witness that rejected centralized control but has come to terms with very limited governance over a colorful history, ending up at a form of combined anarchist thinking and eco-communism. There are frequent oscillations between more authoritarian factions and more libertarian ideals handled by a ritualized version of the Trotskyite concept of a permanent revolution. It is both famous (and infamous) for its peacefully ritualized but politically significant 'revolutions', and its unusual origins, having been founded primarily by a counterculture metal band and its fans.

Political History

"Only those who dream will someday see their dreams converted to reality." - apocryphal tagline attributed to "the Guevara", a viral meme that appears often in Assembly graffiti and activist group insignia: a bearded man with a beret, often drawn in red. Aethnographers believe this to be a holdover from pre-Sundering protest insignia.

"The reasonable human adapts themself to the world: the unreasonable one persists in trying to adapt the world to themselves. Therefore all progress depends on the unreasonable human. And I pride myself, Mr. Angier, on being extremely unreasonable." - Flo Royal, co-founder, vocalist of CTRL+ALT + REVOLUTION, interview with The Partisan, 22 0D

The story of the Assembly begins with CTRL + ALT + REVOLUTION, an electro metal band composed of Flo Royal (vocals), Rakim (producer, melody), DJeremiah (producer, beats) and Sabat 'Anagram' Vho (guitars). 'The Assembly' is what their most prominent fan group called itself.

CTRL + ALT + REVOLUTION drew from pre-Sundering symphonic metal, rave music and the work of the hip-hop recreationist community to produce extremely popular music lyrically



themed around motifs of revolution, anarchist (and often libertarian) ideals. Their debut album WHO GUARDS THE GUARDIANS drew significant attention from political activists and music critics across the spectrum. Their tours became infamous for inviting critics of the government of Witness, a platform and a soapbox in-between musical numbers.

THE STREET FINDS ITS OWN USES FOR THINGS debuted their signature tactic of extravagant name-calling (and sometimes direct threats) to the policymakers pushing for increased state control or cultural unification. In a time of general disenfranchisement, where the people making significant change (such as the events of Distrikt 3) were part of obscure and highly vertical social hierarchies, CTLR + ALT + REVOLUTION exploded in popularity. Among their most prominent supporters were the Microgrid Collective, which was engaged in campaigns for decentralized, open-source and community-maintained energy generation structures.

Their magnum opus is considered to be A SONG FOR A NEW DAY, a 13-track effort that spells out in extraordinary detail the policy positions of a new type of Distrikt featuring common ownership of the means of production, direct democracy and a horizontal network of voluntary associations, workers' councils and worker cooperatives. The last track, DISRUPT/ THIS DOES NOT END HERE, discussed the Assembly's unique feature: a voluntary group of democratically elected individuals, publicly funded and charged with maintaining a 'Permanent Revolution': a constant threat to any form of implicit social hegemony that may arise.

Shortly after A SONG FOR A NEW DAY, CTRL+ALT+REVOLUTION announced a "mass walkout" which would have led a mob of some three thousand into Distrikt 1 territory and to the grounds of Newton's Folly. The walkout was instead turned into a founding expedition when the State Machine sanctioned a new microDistrikt next to the Avantgrid infrastructure and the newly-formed Libria.

"We have learned that it is not enough to define utopia, nor is it enough to fight against the reactionary forces. One must build it here and now, brick by brick, patiently but steadily, until we can make the old dreams a reality: that there will be bread for all, freedom among citizens, and culture; and to be able to read with respect the word 'peace'. We sincerely believe that there is no future that is not built in the present." - Donavan 'Soilfather' Gordillo.

Despite the glamorous founding story, the early years of the Assembly were tales of hardship that, in turn, are responsible for what the Distrikt is today.

One of the first major challenges to the Assembly was the ire of J.C. Denton. Faced with the prospect of ceding even more territory and control, Denton signed Executive Order 8.3, forbidding the Harvest Division to supply energy to the new microDistrikt. This order was



subsequently overturned, but in the meantime the fledgling Distrikt turned to the Microgrid Collective and their designs. Much of this was made possible with CTRL + ALT + REVOLUTION's earnings and significant investment from Distrikt 2 into component production factories and 3D printing. Thus, while today the Assembly is connected to the Harvest Division's grid, it remains the most energy-independent of all Distrikts. The effort of making it so exhausted many initial volunteers, including DJremiah, who relocated to Libria.

After the energy crisis, the Assembly had to face a pressing issue of food supply. Fearing mass starvation, Flo Royal took to the stage again to advise people to leave if they felt uncertain about the future. Hundreds deserted. The remainder were asked to partition themselves into collectives to solve issues of food growth, irrigation and water supply. The solution came organically, as she had hoped: Donavan Gordillo, a former agriculture specialist, leading a farming collective, established the Assembly's first successful Mass Farm. The Mass Farm Collective adopted tactics from a pre-Sundering village known as Marinaleda: crops selected were, counterintuitively, the ones that would need the most amount of labor - olives, peppers, beans, tomatoes, coffee, wheat have been staples of all Mass Farms. Co-op workers were paid in food. People who joined the Collective began to donate electricity from local microgrids. General Townhall Meetings were held to make large-scale decisions that involved most of the co-op.

Conversations around currency were met with swift reprisal. "What is the value of money?" Gordillo is famously said to have cried at a subsequent town hall meeting. "Food on the table, meaningful work; that is what we need, not economic theory. You can write all the books you want once people are fed."

Starting from Gordillo and stretching outward began a culture of collectives and an informal barter economy - first dedicated to meeting farming needs and maintaining microgrids, and then, as more complex problems evolved locally, to meeting those. Although eventually currency did arise, most people in the Assembly thus favored barter for local exchanges, and Gordillo's focus on direct (rather than market-based) provision of basic needs remained a constant feature of Assembly politics and economy.

Economy

The economy of the Assembly consists of three main elements: decentralized, but federated, infrastructure; bounded market exchange; and control systems to prevent the concentration of economic power. It is often described in shorthand as "markets without capitalism", an expression used by Royal in the cover notes for A song for New Day . Today, the same expression stands as the motto of the David Graeber Institute, the Assembly's semi-official economic think tank and alt-business school.



Origins

The current architecture of the Assembly's economy evolved as a byproduct of the supply crises brought about by Order 8.3, combined with the communitarian/libertarian orientation prevailing among the first settlers.

The supply crisis provided a powerful incentive to disregard ideological posturing, and reward the provision of any solution, as long as it worked. What proved to work fastest was loosely federated systems to generate and distribute energy and food. The same pragmatism prevented this original infrastructure from splintering: the core group around CTRL + ALT + REVOLUTION exerted enormous pressure on individual solar fields and farm collectives to stay connected to their peers, immediately sharing anything they produced in excess to their needs. Arbitrage and what the core group considered "predatory pricing" were strongly discouraged, in a last-ditch effort to keep the settlers ahead of severe scarcity. These efforts were deemed too repressive of economic freedoms by some of the settlers, with some choosing to relocate to Libria. However, most chose to stay, in recognition of the fact that renewable energy and food production are subject to inherent fluctuation. This means that the existence of local surpluses is unavoidable, and simple, non-predatory systems to share the excesses de-risks the whole local economy.

From this difficult beginning, the Assembly inherited some capacity to regulate decentralized infrastructure, institutions strongly legitimized to do so, and a pragmatic attitude to economic affairs.

Production

Production and manufacturing in the Assembly are organized mainly along cooperativist lines. Baseline production units (for example, in agriculture, farms) form cooperatives to collectively produce those production inputs or services that require a scale larger than that of the units (for example, in food production, most transformation, like mills for grains).

As noted above, agriculture is both a significant part of life in the Assembly and a core of its political history. One of its most famous inventors is Nikita Bourlag, whose lab constantly produces new types of cultivars. Her early experiments crossed a strand of wheat called Lerma Rojo 64 - a variety originally bred to create shorter, stronger stalks that could support more heads of grain per plant - with DS12, a highly disease-resistant wheat from the original Project Viking seedlabs.

The result is Viking 64, a semi-dwarf high-yield wheat that could grow on poorer soil, artificial composites, and withstand the kind of environmental challenges that Witness was subject to. Lerma Rojo and later variants from Bourlag's lab were critical in making Witness largely self-



sufficient in food and guaranteed goodwill from outlying Distrikts towards the assembly. Bourlag's seedlab has since produced Lorelei, Bruno3.3, LanceV2, and Agatha4, the mosses, seaweed-analogues and photobionts that give the Assembly its signature vegetated look.

Distribution and trade

Most people in the Assembly subscribe to an ideology of local autonomy. Producing for one's own consumption is considered virtuous. Energy and, to a lesser extent, food are, to a considerable amount consumed by the same households and firms that produce them. In practice, however, economic agents in the Assembly depend on each other for securing most goods and services they need. Anything that is not consumed by the producer is exchanged on markets.

Market prices in the Assembly are free to float, but only within limits, set by citizen assemblies and revised periodically. These limits are enforced by a system inspired by pre-Sundering stock exchanges: when the price of something grows (or falls) too much or too quickly, the e-commerce platforms temporarily suspend exchanges. These institutions are known in the Assembly as bounded free markets, or simply bounded markets.

Trade with other Distrikts

The stability, cohesion and relative prosperity of the Assembly comes at the price of a relatively tight control of inter-Distrikt trade. This is achieved with a dual system: natural persons from anywhere in Witness are free to operate in the Assembly, but legal persons are almost always not. Among other restrictions, companies are obliged to be owned by their workers, and cannot have other companies as shareholders. Foreign direct investment is near-zero, restricted to specific, and tightly monitored, cases. Inter-Distrikt trade is limited to the export of small-batch manufacturing industrial products and services – notably creative industry ones, and the import of raw materials and the occasional advanced tech artifact.

Commerce with Libria is often fraught, as the small-scale DIY ethos of the Assembly has to contend against economies of scale and capital that can sometimes undercut markets to gain strangleholds. Several instances of looming gentrification have been prevented by Revolutionists - in a few instances with the liberal application of Molotov cocktails.

Currency

The Assembly does use a currency: the ironically named CTRLcoin, a blockchain-based system that relies on a concept called regenerative proof-of-stake. Instead of 'mining', as with most implementations, anyone who comes within the borders of the Assembly is



automatically assigned a Wallet and a starting pot of coins.

This Wallet, over time, generates or decays accumulated coins towards a mean so that a) no-one can remain poor for too long and b) no-one can hoard wealth. The mean, or the starting pot, is decided by an automated, distributed consensus mechanism that pegs the total number of coins to a set maximum. Wallets are adjusted whenever they connect for a transaction (thus, it is theoretically possible to hoard coins, as long as you understand that you cannot carry out a transaction without your Wallet adjusting itself).

This process is handled by the State Machine on behalf of the Assembly, although as with the microgrids, the Assembly has the infrastructure to not rely on this system. CTRLcoin has proven itself critical for the careers of more abstract and scalable work such as those of scholars, artists and programmers.

Despite strong efforts to prevent it, instances of rent have risen, especially for those parts of the Assembly that cater to tourism from the other Distrikts. Sumer Street is an area where visitors pay rent that is put into a communal treasury; income from bars, coffeehouses and stores also do the same. Similarly, the fruits of CTRL + ALT + REVOLUTION franchising income (and those of several popular artists) go directly into common funds and collectives set up by Flo Royal. Currency from the other districts is either spent directly on imports or to purchase space from nearby Libria.

Topography and Environment

The Assembly has often been described as a 'flat, green' region. A more apt description would be a suburbia interspersed with infrastructure built broadly along the lines of the microgrids, forming units of housing and work that are able to sustain themselves without much outside interaction. Greenery and vertical farming are an important part of this design.

Recent advances in 3D printing and design have led to the construction of experimental stacked high-rises on the Harvestside area, while much of the seaside parts of the Assembly have been converted to public beachfronts, seaweed farms and expansion space.

Notable monuments and buildings include the statues of CTRL + ALT + REVOLUTION in the city center, the Windward Platform for the Arts and the weekly open mics that happen there, the Gordillo Market (originally called the Mass Farm One Market), the Flea Markets down Sidesquabble Avenue, and the Microgrid Temple, where collectives host research fairs to invite inventors and researchers to demo technologies and present research that sustains or could enhance the Assembly's way of life, in exchange for funding - usually in the form of housing and materials.



Culture, Education and Contemporary Life

The Assembly is generally considered to be one of the best places to begin as a musician, due to its community structures, public support, and the legacy of CTRL + ALT + REVOLUTION. Artists looking for wider fame and fortune, however, are unlikely to find it here, as The Assembly lacks the kind of widespread marketing or the heavy capital investment found in Libria. There is, therefore, a rich history of artists moving back and forth between the two territories.

The Assembly overwhelmingly favors apprenticing systems as a way of learning skills. Most citizens typically join the nearest collective, pick up useful skills as an apprentice, and then spend time as a journeyman migrating from collective to collective before settling down and working towards mastery. Highly skilled individuals take on apprentices of their own; an unintended consequence is often ferocious competition to draw a Master's attention and earn an apprenticeship.

Transport

The Assembly has a series of public rail networks connecting it from one end to the other, as well as an informal network of blimps run on an as-you-need basis. Public transport is free, with citizens and collectives donating material to the Trainspotting Guild. Citizens may even add their own 'carts' to the tracks: the caveat is that all tracks are one-way, and any cart has to operate at a specific speed. Several collectives thus run their own rail carts, especially those that need to move perishable goods (ie: fruits and vegetables) to distribution centers or factories (ie: canning).

The Assembly has made one notable transport contribution to Witness, one that changed all cities as thoroughly as the Harvest Division: the Migrant Train. Of all Distrikts in Witness, Assembly's Trainspotting Guild probably has the best rail-based public transit systems. Invited to a design meeting to create a unified set of rail standards across the Distrikts, Tyson Wijeratne, the Trainspotting Guild's then-Second Chief, proposed a modular system, complete with State Machine integration, that would also let people migrate across Distrikts in search of a life they preferred; he stated that he was inspired in part by the journeyman phase of his career, where he worked across several different collectives before joining the Trainspotters. This idea was initially resisted by the Covenant, but votes from Libria and the State Machine Council saw it through.

Digital Technology

Digital networks in The Assembly are organized mostly along cooperative lines, like the



rest of its economy. A high degree of interoperability is ensured by tight cooperation on technical standards. The Distrikt's government is highly active in standard-setting bodies, leveraging its core competence in coordinating the interoperability of locally autonomous systems to make sure that the lowest-level layers of The Assembly's digital infrastructure are fully interoperable, within the Distrikt and with other Distrikts.

Coordination in the data and application layers of digital technology is not strongly encouraged as such by the government, with some exceptions. A certain amount of it happens anyway, by virtue of bottom-up coordination between businesses (mostly cooperatives).

in brief

Digital identity layer and digital currency

The government of The Assembly issues digital identities as system-enablers, and exerts a strong influence in the technical standards bodies to make sure these identities work with all other layers in the system.

The Assembly's digital currency, CRTLcoin, is used to enact certain economic rights that all citizens have. As a consequence, digital wallets in The Assembly are accessed via each citizen's official ID. Third-parties digital identities are legal, but not acknowledged by the government.

Data cooperatives

Data cooperatives are a distinguishing feature of the digital world in The Assembly. Groups of actors – for example, regenerative agriculture farmers, or artists, or the dwellers of a specific village or neighborhood – agree to pool together the data generated by their activities. These datapools are often used by the cooperators themselves, but are also often sold on the market, both to other cooperatives and to private companies outside the Assembly. For example, users of Libria-based social networking services are organized into consumer cooperatives that negotiate with those services, charging them fees in return for allowing them to monetize (via targeted advertising) the digital trail left by cooperators.



Notable People

Arguably the most famous citizen is **Flo Royal** herself, who, after the band imploded, spent significant amounts of time aiding fledgling collectives and today is the closest that The Assembly will admit to having a single spokesperson. Under her leadership, a new CTRL + ALT + REVOLUTION put out CHRONICLES OF STRUGGLE and CHOP WOOD, CARRY WATER, two albums that serve as documentaries on the process of building the Assembly. It should be noted that her work has lost most of its symphonic metal elements for gentler trance work. She and her CTRL + ALT + Townhalls remain an institution unto themselves.

Just as revered is **Donovan Gordillo**, often good-naturedly called Soilfather, for his work in bringing the Assembly to agricultural independence and for his fierce campaigning against the spread of foreign currency in the Assembly. Gordillo is widely considered to be the top authority on antifragile collective-building and often borders on being a Revolutionist, despite never taking the position. Nevertheless, it's a common saying that when the revolution comes, Gordillo will be there at the back, feeding the rebels.

Tyson Jayawardana and **Nikita Bourlag** are seen as savants who continue such work for the greater good, and generally have little to say other than on transport and food respectively - but while Jayawardana often works alongside his Guild, Bourlag is seen more as an outsider with a gift that it would be foolish to ignore.

Another popular citizen is the poet and archivist **Chen Da Jiang**, whose interDistrikt photography, Diaries of Water (a nuanced pseudo-epic on the founding of the Assembly, told from the perspective of the ocean, and sometimes running counter to what was popularized by CTRL + ALT + REVOLUTION) and Humans of Witness (a long-running interview project) have made them a darling of both people and aethnographers.

The longest-serving Revolutionist, and the most faithful adherent of the system, is **Anagram Vho**, who after CTRL + ALT + REVOLUTION's dissolution took on the task of 'balancing' religious influences from the Covenant. Sometimes accused of religious persecution, Rose views religion as an unwelcome hegemony and a shadow power structure that goes against the ideals of the Assembly.

Footnotes

The Assembly is not as impossible as it might seem. Much of its struggle, especially towards agricultural independence, is inspired by the story of Marinaleda, a village in Spain that came upon a different and sustainable way of doing things. The tale of Denmark's Freetown Christiania also makes an appearance in shaping how events develop once such communities encounter greater economic systems, especially tourism.



The economy is a greatly accelerated version, and more communitarian-anarchist version of the <u>successful co-op economies that Vietnam is trialing</u>; they have seen <u>significant advances</u> since the first implementations.

As for CTRL + ALT + REVOLUTION, someone new to anarcho-punk bands only needs to glance at the relevant Wikipedia entry: "Many anarcho-punks are pacifists (e.g. Crass and Discharge) and therefore believe in using non-violent means of achieving their aims. These include nonviolent resistance, refusal of work, squatting, economic sabotage, dumpster diving, graffiti, culture jamming, ecotage, freeganism, boycotting, civil disobedience, hacktivism and subvertising. Some anarcho-punks believe that violence or property damage is an acceptable way of achieving social change (e.g. Conflict). This manifests itself as rioting, vandalism, wire cutting, hunt sabotage . . . and in extreme cases, bombings." . . . and then compare the ethos of these bands, and those of movements like Fluxus and Happenings in the 1970s, to that of modern-day hacktivists. There are almost too many to list; reality ranges from those designing anti-surveillance facewear to those operating in the tiers of Wikileaks, DkD[||, and the Cult of the Dead Cow; in fiction, Tim Morgan's 2019 novel Infinite Detail provides a fascinatingly plausible look at one such movement in the not-too-distant future.

Punks never die: they only go briefly in and out of style.





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FAQs/Key Points

- Production and manufacturing in the Assembly are organized mainly along cooperativist lines. Baseline production units (for example, in agriculture, farms) form cooperatives to collectively produce those production inputs or services that require a scale larger than that of the units (for example, in food production, most transformation, like mills for grains).
- Most people in the Assembly subscribe to an ideology of local autonomy. Producing
 for one's own consumption is considered virtuous. Energy and, to a lesser extent,
 food are, to a considerable amount consumed by the same households and firms that
 produce them. In practice, however, economic agents in the Assembly depend on
 each other for securing most goods and services they need. Anything that is not
 consumed by the producer is exchanged on markets.
- Market prices in the Assembly are free to float, but only within limits, set by citizen
 assemblies and revised periodically. These limits are enforced by a system inspired
 by pre-Sundering stock exchanges: when the price of something grows (or falls) too
 much or too quickly, the e-commerce platforms temporarily suspend exchanges.
 These institutions are known in the Assembly as bounded free markets, or simply
 bounded markets.
- The stability, cohesion and relative prosperity of the Assembly comes at the price of a relatively tight control of inter-Distrikt trade. This is achieved with a dual system: natural persons from anywhere in Witness are free to operate in the Assembly, but legal persons are almost always not. Among other restrictions, companies are obliged to be owned by their workers, and cannot have other companies as shareholders. Foreign direct investment is near-zero, restricted to specific, and tightly monitored, cases. Inter-Distrikt trade is limited to the export of small-batch manufacturing industrial products and services notably creative industry ones, and the import of raw materials and the occasional advanced tech artifact.
- Commerce with some of the other distrikts is often fraught, as the small-scale DIY
 ethos of the Assembly has to contend against economies of scale and capital that
 can sometimes undercut markets to gain strangleholds. Several instances of looming
 gentrification have been prevented by Revolutionists in a few instances with the
 liberal application of Molotov cocktails.



Avantgrid

Avantgrid is a large archipelago Distrikt between Assembly and Libria.

"The object of life is not to be on the side of the majority, but to escape finding oneself in the ranks of the insane." - Marcus Aurelius

Avantgrid is a large archipelago Distrikt between <u>Assembly</u> and <u>Libria</u>. Originally a zone of Libria, built to cater to an exclusive, high-income clientele, it fractured in 15 0D after the collapse of a geoengineering company left the ownership of the archipelago in dispute.

Avantgrid is the only Distrikt in <u>Witness</u> that is not connected to the Harvest grid. In contrast to the mostly urban other Distrikts of Witness, Avantgrid is a largely rural Distrikt which even contains patches of uninhabited wilderness. Of the 1.1 million inhabitants of Avantgrid, 150.000 live in Akur, it's only urban zone. There are 149 islands in the archipelago; outside of Akur, boundaries are being made and remade all the time, and new islands are under construction by various parties within Avantgrid.

While modern-day Avantgrid is very welcoming of new inhabitants, the strict energy frugality brought about by voluntary disconnection from Harvest means that the lifestyle dissuades many from relocating to one of its islands.

Some political pundits of Hygge, Libria, and the <u>Covenant</u> routinely warn that the seemingly calm exterior of Avantgrid hides a festering underbelly of radical extremists that aim to shut down the Harvest Division by force if necessary. Since the islands are largely self-governing cantons, it is understood that the ability of the Avantgrid Confederation to do anything about ideological radicalization is limited. This has created conflict with <u>Libria</u>, and attempts have been made to convince the State Machine to relinquish the archipelago back into Librian control.

Political History

Avantgrid was originally a zone of <u>Libria</u>, constructed as a get-away location for the elites who had tired of living in the urban sprawl. Originally called Seastead II, it was constructed at great expense by the Kleindestine Company - specialists in geo- and eco-engineering, using dredging techniques that had been thought lost to the Sundering.

Astrid Kleindestine, the highly charismatic CEO of Kleindestine, bet almost everything the company had and pitched Seastead II to the rising *nouveau riche* class within Libria, appealing to largely libertarian sensibilities. The general thrust of the advertising campaign - possibly the largest Witness has ever seen - stressed that both state and corporate



surveillance (the latter being of the Librian kind) infringed on fundamental liberties. The *Millionaire Migration* made headlines in its day, as aethnographers of all stripes worried that Libria would be left with a collapsed economy made of only the working poor and the ultrarich. The fact that Kleindestine had somehow negotiated the non-intervention of the State Machine was interpreted as a libertarian dream by some and a worrying precedent by many.

However, as the project entered its habitable stages and went into its last phase of construction, the Great Wave of 015D hit Witness, severing the power lines that connected the 135 completed islands to the Harvest grid. A surge of insurance claims in the wake of the tsunami also brought down the unstable banks that had issued bonds to the Kleindestine Company, and in the following year of financial turmoil and cutthroat seizure of assets, the company collapsed and ownership of the Seastead archipelago became contested.

A brief period of armed conflict followed between the subcontracted gangs of corporations who laid claim to the islands of Seastead, and the legal ambiguity prevented the Night Watchmen from acting with any mandate. By 017D the only major presence left was that of the smuggling routes of the Seaside Senators and the Hoshizaki BioMonastery, a Hygge-Covenant joint operation that licensed intellectual property from the Assembly and was using vast tracts of potentially arable land on Avantgrid to provide food supplies to both Distrikts.

The New Beginning

Taking advantage of this uncertainty, a second migration from <u>Libria</u> started moving to the islands on the outskirts of Seastead, seeking freedom from authority while getting away from the claustrophobic downtown sprawls.

Unlike the original high-income inhabitants, most of this wave were middle-income migrants tired of the increasing cost of living and the steady corporate ownership of private spaces. Many of them hiked and peddled over in improvised skiffs; the lack of access to the Harvest grid meant that they could bring with them only very low-energy devices and machines.

Many of these new inhabitants had participated in the Marches against the rule of Denton. They were folk already used to hardiness and building from almost nothing, and their time in the rapidly-growing Libria had instilled a general desire for a more frugal and sustainable way of life.

Some among them wished for an even more extreme version of sustainability. The "ecopragmatists' '. as they called themselves, theorized that increasingly complex and energy-heavy systems - both in terms of technology and in terms of social structures - would only lead to the second coming of the arrogance that brought about the Sundering. A frugal vision of Witness, built on the principles of cyclical economy and strict accounting for energy consumption, lent itself quite naturally to the conditions that many of the second wave had to endure in Avantgrid. The eco-pragmatist theory - that accounting for energy should not be more controversial than accounting for money - found fertile roots.



The Dirk-Leo Correspondence

One prominent eco-pragmatist migrant to Seastead was Octavia Dirk. Formerly one of the 12 delegates on the Libria Committee that had fallen to the plots of Megan Rilke and Karunasalam Balraj, Dirk resurfaced among the second wave. In a highly publicized series of message-board letters between her and the Benedictine monk Alban Leo of the Covenant, she had laid out the tenets of a society with eco-pragmatist ideals that aligned with the Benedictine/Hyborean faith. She posited that because currency brought about its own implicit social contracts, tying value of a currency to the inverse of energy consumption would be a clever way to preserve liberty while living within the means of the environment.

This exchange came to a point when Dirk put this question to Leo:

"As we know, the quality of manufacture by your order is of indisputable quality - "ora et labora" indeed! As an act of faith and devotion, you build your goods to last as long as possible - a display of frugality and conservation of energy. But tell me this, esteemed Father Alban - if God and his creation are infinite, why do you care not to waste? Surely there is always more to be had of His infinite creation?" - Octavia Dirk, open letters to Alban Leo Leo, after prolonged meditation, came to the controversial conclusion that God and the universe are not infinite, but finite. Indeed, he rejected infinity as entirely fictitious - a mathematical construct. A theatrical orator, published an essay named "God Has No God" that was deemed unforgivably blasphemous.

"On the morning of the seventh day, God woke up and noticed that the density of distributed matter had decreased ever so slightly. Matter is finite, and so is god! Infinity, what self-deception it had been! God's god, infinity, was dead. With the feeling of one who has indulged too much, God looked at the product of six days of frenzied creation. The damage had been done, the false testament to infinity had been written into the fabric of creation. Endless blue skies, deep ocean trenches; even the fabric of the universe itself lies, seeming infinite through a parlor trick of expansion and contraction like the surface of a balloon at a birthday party. And God wept, knowing that it was inevitable that the life that sprung from this creation would eventually have to go mad with infinity-fever before seeing the truth." - Alban Leo OSB, God Has No God

Following the liberalization in the wake of Cottica's popularity, Leo was not immediately prosecuted for this essay. It and other communiques used Leo's idea of a non-infinite creation to argue that all resources be treated as finite, and became the basis for "Advent Grid: Cyclical Life and Devotion", a fringe text that gained a cult-like following in both Libria and the Covenant among those who feared a second Sundering. Leo began suggesting that those interested in his work travel to Seastead II and take it upon themselves to live differently; thus, a third wave of newly minted eco-pragmatists flocked to join Dirk at Seastead II with the explicit intention of turning it into a Distrikt.

This period, although short, was an extremely violent part of Witness history, as the



corporations of Libria fought to prevent the fracture. This has created a deep gulf of suspicion and distrust between the people of Avantgrid and Libria ever since.

At a point, a large enough number of eco-pragmatists had gathered on the islands of Seastead, and the State Machine concluded that the logical action was to cut this zone off from Libria and pronounce it a new Distrikt with an eco-pragmatist governance model. Avantgrid was the first Distrikt that was formed through a conscious effort of a group to force the State Machine to fracture by assembling a group of like-minded people with an agenda.

In 20 0D Leonine himself relocated to join Dirk, protected on the way out by a private militia belonging to Cindy Lupin - the heir to a corporate empire in Libria and an enthusiast of the newly popular eco-pragmatism - and worked for a while in the Hoshizaki BioMonastery to further his knowledge of hydroponics and seed-crops. During his time, and using the authority as a potential leader of the newly minted district, there he was able to convince the BioMonastery that the bulk of its labor force should be local, so that the populace could learn critical skills.

However, despite all of this, the eco-pragmatic governance model did not work out as a single-state solution. Many of the inhabitants had their roots in Libria, and had set up independent zones on their islands. While they absorbed eco-pragmatism as a viable way of living, the general libertarian tendencies of all three waves convinced the State Machine that a unitary state would decay rapidly. A compromise was struck, declaring the new Distrikt a Confederacy of Cantons. A dialectal pronunciation of "Advent Grid" gave the Distrikt the name that stuck - Avantgrid. More extreme eco-pragmatist thought forms the root of thinking for at least two strains of eco-fascism present in Witness.

Current Politics

Each Canton of Avantgrid is essentially self-governing.

Citizens can claim and hold as much territory as they require. Any trade happens with barter - either goods, services, or with land and energy; value is mutually decided by both parties. Issues of justice and contracts are dealt with at a monthly Canton Agora, which is (given the size of each Canton) a small democracy modeled along old Greek lines. Ostracism - the yearly ability to banish a person from a Canton, based on a popular vote - is in play.

To prevent forces from other Distrikts from seizing control, the State Machine maintains a 'first-principle right to violence' in exchange for the unfettered operation of the Hoshizaki BioMonastery and other public-good institutions, such as aethnography schools. In return, any invaders would face joint forces from both Hygge and the Convenant, as well as disconnection of State Machine-controlled services such as the Harvest Division and (later) the Migrant Train.



Almost all Cantons - or at least, most known Cantons - take responsibility for the education of their citizens in energy and material accountability. Cantons also share knowledge openly to advance energy-conserving technology and practices.

Economy

"We live to the rhythms of the sea and the stars, not to those of corporations and bureaucracies." - Octavia Dirk

Advantgrid's economy is the hardest to understand from a single perspective. Its decentralized nature makes it almost impossible to do anything more than observe and perhaps estimate the transactions happening in Akur. Small armies of student theors from all over are routinely sent into Avantgrid to understand an in-your-face example of the limits of knowledge. Few of them go much beyond Akur.

An important part of Avantgrid inter-Canton bargaining is that the buyer and the seller meet on neutral ground or a location agreed to be such, with no more than two seconds. This allows a kind of limited Coasian bargaining to take place. The inhabitants of Avantgrid consider this a point of pride, showing the independence of each Canton, and the unforced and willing nature of each exchange. Akur has a number of so-called "Meeting Islands" which are often used as such neutral trading locations.

In general, the economy is best understood through a cultural prism. The Avantgrid economy is highly cyclical, closer to zero-waste than anything else on Witness; in fact, some Cantons import waste from other Distrikts - especially electronics - to repair, rebuild, and to extract materials. Avantgrid attitudes towards waste have been compared to the water beliefs of the sand-nomads in the pre-Sundering religious text *Dune*.

One expression of this is the Reuse Fair, an annual event in Akur where people from all over Avantgrid gather to show off and share their developments in energy-saving and waste reclamation. This includes everything from the Industrial-Fixit to the Re-Fashion show, where the oldest and best maintained clothes compete alongside the best new upcycling style.

Two proposals are making the rounds in today's Avantgrid. The first is the Dirk-Leonine concept of a currency whose value decreases with materials use - although this would require a complete inventory of all materials and estimation of their value. The second is the idea of a ledger of material and energy spend within Avantgrid, self-reported. Any energy that is spent in production and manufacturing must also be accounted for on the ledger, as well as the means through which this energy was generated.

Both ideas are in vogue among the theors at the Ásgeirsson-Institut, a conclave of aethnographers specializing on theorical economics. The poet-economist Cottica has levied the argument that practically, the compute and energy costs of maintaining such a ledger, be it a centralized solution or a decentralized one, would go completely against Avantgrid's eco-



pragmatist ethos. There is also political opposition to a central ledger as a threat to the selfrule of the Cantons and religious opposition to such open accounting as limiting the possibilities of secret or non-public contributions to the energy frugality of Witness.

Manufacturing

Some Cantons of Avantgrid continue to expand the archipelago by keeping the geoengineering factories up and running. These efforts require importing large quantities of energy from the Harvest grid (using Avantgrid-maintained batteries), and converting waste material reclaimed from other districts into substrate for new livable land. This process is net energy consuming, and arguments have been levied for and against the practice. In general, the energy footprint of creating an island with Harvest energy is seen as a debt that should be repaid by avoiding or preventing an equivalent amount of Harvest energy being spent. This repayment usually involves crediting the Canton for the energy saved by the waste reclamation, and for enabling more people to live the Avantgrid life. It is estimated that if 200 people live out their lives as frugal citizens on an island in Avantgrid instead of as middle-class citizens of neighboring Libria, the energy cost of producing an island is offset.

There are rumors of other methods of 'repaying the debt', including groups knocking chunks of other Distrikts off the Harvest grid for a time to help balance the ledgers. This may explain why the debate about island building is generally civil and why few extreme religious sects oppose the project outright.

The State Machine has calculated that the islands of Avantgrid also serve as an effective water break and anchoring system for other cities, as well as available space to requisition for MicroDistrikts; and thus the Harvest Division helps offset some of the energy cost.

Culture and Beliefs

Most people in Avantgrid lead a life that is frugal, artful, quiet, and close to nature. Doubtless it has more risk and work involved than social nets available elsewhere, but inhabitants generally report high levels of contentment. Technology is usually several generations behind, and tuned to be extremely energy efficient; Avantgrid engineers are masters of the 'do one thing and do it well' school of thought - so it is extremely rare to find highly networked general purpose computing machines, for example, unless there is a real utility for such.

Avantgrid has a mix of religious affiliations as it had an influx from both Libria and the Covenant. There are a significant number of monasteries that have branched off from the Covenant, and look more like Zen-temples made of wood in their Avantgrid incarnations.

Many temples of Nygogi Buddhism also make Avantgrid their home, as the ethos of energy conservation and the metaphysics of karma have wedded to the ideas of energy waste as harmful. The rejection of infinity as a valid concept has also become popular, accepting the



ultimately finite nature of all things - even the universe itself.

There is also a radical and sectarian sub-strand in Avantgrid that is willing to use force and violence to sabotage the access to the Harvest grid in other Distrikts. These terrorist cells are very hard to stop within Avantgrid, but have limited effectiveness elsewhere, as various combinations of surveillance are hard to train against. Nevertheless, sleeper cells have been discovered and punished in Hygge and the Assembly.

Some sects in Avantgrid believe that the only way to save Witness is to embed as many of their ranks as possible in other Distrikts, spreading the gospel of energy frugality in secret, hoping to shape policy to nudge Distrikts towards energy-frugal governance model. Many of these believers were responsible for the microGrid Collective and the adoption of the distributed energy model seen in the Assembly.

Education

The Ásgeirsson-Institut, one of the most prestigious institute of <u>aethnography</u> is located in Avantgrid. Aethnography is especially prized in Avantgrid as augurs travelling between settlements provide a key vector for news, ideas and innovation to migrate, as well as some much-needed new company for those who live on these islands. The Ásgeirsson-Institute specializes in thinking about energy in all facets of life and augurs are tasked with traveling between islands to study this in the hundreds of communities of Avantgrid.

A primary method of study is the energy-audit, in which travelling augurs conduct detailed examinations of how the inhabitants of the different Cantons understand their energy-cycles and the nature of the cyclical economy, help citizens optimize their ways of consumption, and gain insights from day-by-day frugal life; this knowledge then slowly makes its way back to the Institute itself, and from there to the rest of Witness.

Topology

The Avantgrid archipelago is the closest thing to wild nature that Witness has to offer, and many of the islands have sizable areas of forests, marshes, fields, and undisturbed wildlife. Many of the islands are covered in evergreen pinewood forests and a varied flora, enriched by the pollen that gets carried by the winds across the ocean.

The original purpose of the Seastead II had been as resort islands and private summer getaways, with lush and varied gardens and grounds for relaxing, hiking, and hunting. Many of the islands already had self-supporting ecosystems of predators and prey. Some of these creatures were flown into Witness from surrounding landmasses, while others were genetically engineered and developed. This has resulted in a surprising and sometimes unmapped fauna populating some of the larger islands of Avantgrid.



A project of the Science Fiction Economics Lab Scifiecon.org









The Covenant

The Covenant is indeed a religious institution Distrikt, tracing itself back to the grand powers of Roman Catholicism.

"Asked if she knew she was in God's grace, she answered, 'If I am not, may God put me there; and if I am, may God so keep me." - Cottica, on Mayor Ebunoluwa Akinyemi, *Officium Auctoritatis Summae*, I

The Covenant is perhaps the least-understood among all the major Distrikts of Witness. Notable visitors have described it alternatively as "a kind of feudal paradise" or a "fascist religious hegemony" or "a work of art". As always, the truth lies somewhere in between. The Covenant is indeed a religious institution, tracing itself back to the grand powers of Roman Catholicism. Broadly united under the *Officium Auctoritatis Summae* - loosely rendered as "the Office of the Highest Authority", and generally shortened to "Auctoritatis", it is possibly the single greatest concentration of material wealth on Witness. Magnificent churches stud the landscape, surrounded by carefully planned farms and estates; buildings of singularly brutalist art nouveau style line the streets of Hyborean, the 'center' sprawled around the *Officium*?

The Library of St. Benedict, Witness's largest store of knowledge and the home of much of the State Machine's processor cores, occupies a curious no-man's land in the middle of all this. Guarded by elite military from Hygge, staffed by tonsured monks from the Covenant's *Ordo Libri*, rabidly devoured by Librians looking for a competitive advantage, and all but ignored by the Assembly and Avantgrid: it is Witness's politics in a microcosm.

Political History

The distinct features of modern-day The Covenant began to appear under the leadership of Distrikt Mayor Ebunoluwa Akinyemi, who gained the very first mayoral elections of what was then still called Distrikt 3. A Roman Catholic, she ran on a platform that mixed a certain social conservatism (described as paternalism by the opposition of the time) with a strong emphasis on religious freedom. Akinyemi's policies emphasized the autonomy of religious institutions from the Distrikt's government. As a result, many of the City's Churches and Monastic Orders chose Distrikt 3 as their main home. The more devout of the migrants to early-days Witness followed suit.

This move cemented Akinyemi's vision into a solid reality. With a large population of believers, and a strong presence of religious institutions in all main areas of public life, Distrikt 3 consolidated as the religious center of the City. In the course of Akinyemi's third term, the Distrikt Council voted to adopt Resolution 430, which reformed the Distrikt's



governance to take the new reality into account. Among other decisions, Resolution 430 gave permanent council seats to the representatives of religious institutions, assembled in the Episcopal Conference of Witness, installed the office of the Auctoritatis, and changed Distrikt 3's official denomination into The Covenant, a nickname originally used in a derogatory sense by progressive media.

Religious leaders welcomed a stable environment that would respect the spiritual quests of their flock, and supported Resolution 430 discreetly, but unambiguously. Once it was approved, however, they adopted the view that it was inappropriate for members of the clergy and monastic orders to get directly involved in Distrikt leadership and administration.

To this day, all elected officials and civil servants in The Covenant are laypersons, although the separation of church and state is nonexistent: major religious sub-sects all have permanent Council seats. The representative of the *Collegium Auctoritatis* serves as an analogue to a Parliamentary Speaker. Moreover, city officials often request that priests, nuns or monks serve as their expert advisors, under special dispensation from their religious superiors. To have someone from the Officium is seen as an especial honor, as these *novitates* not just signify a link to the Auctoritati, but also have a Machiavellian knowledge of realpolitik and the art of governing effectively.

Almost everything we know about the inner workings of the Covenant come from the works of the poet-economist Cottica. Using a pseudonym to evade the attention of censors, Cottica published a viral poem known as *Tibi Deus de Purgatorio*, chronicling a trip through a supposed high-fantasy world inhabited by celestial and demonic beings. Further analysis revealed a cipher in the opening stanzas that turns the names of the angels and demons within into their respective offices, and place names turn into laws and deeds; thus their grandiose, introspective statements becoming both a history of decisions made within the Covenant as well as a declaration of their political power.

Governance

The Covenant has a dual governance system. The secular political institutions are a representative democracy, with an elected Council at the top. Parties of religious inspiration have had an unbroken majority since the times of Akinyemi.

The religious institutions follow the model adapted from the Order of Saint Benedict. Monasteries and churches, formally sovereign, form a federation (*Officium Summae Auctoritatis*) which exerts on its members a strong moral authority, and an equally strong pressure to conformity. In each religious institution, superiors are elected by monks or nuns having taken their full vows. The federation itself is governed by a small (never more than 40 members) council of senior superiors (*Collegium Summae Auctoritatis*), which co-opts its own members. A highly trained religious technocracy assists the *Collegium* and implements its decisions.



Economy

The Covenant's economy is robust and diverse, with an unusually high presence of manufacturing. The service sector is also strong, notably in higher education, health care, and finance. The Covenant hosts the headquarters of several large utilities that serve not only the Distrikt itself, but also run some critical infrastructures of other Distrikts.

A unique feature of The Covenant's economy is the strong role played by monasteries and other religious institutions. While by no means numerically prevalent, these institutions tend to be over-represented among the most advanced, most successful operations. This observation led economist Malivalaya Nut to describe The Covenant as a dual economy, where two sets of economic agents with completely different objective functions co-exist. In a series of empirical investigation of The Covenant's economy, Nut discovered a pattern: the economic activity of religious institutions tends to be amplified by businesses that are legally part of the saecular economy, but have evolved for taking advantage of the turbulence created by the existence of the religious institutions themselves – for example lifting innovations invented in the monasteries and re-engineering them for saecular markets.

The number of jobs in The Covenant is estimated at over 4 million, though estimates are highly sensitive to whether the numerous nuns, monks and priests who participate in economic activities are classified as "workers". The position of the religious authorities is that the manual and intellectual efforts of the devout is part of their spiritual quest, and in no way akin to selling one's time for money. In fact, many Covenant intellectuals have come to consider the notion of "market" as morally dubious, and that of the labour market as outright demonic. Most Aethnographic schools disagree, pointing out that most laypeople long for meaning even while doing paid work, and some find it. Some sympathy for this more lenient position can be found in certain scholars of the Graeber Institute.

Manufacturing

The Covenant has a strong manufacturing base, with the highest economic complexity index of all Distrikts Major. In part, this is an effect of the Benedictine structure imposed by the Hyborean Order, trusted by the Auctoritatis as *Ordo Operarum*. The Benedictine/Hyborean devotion to the motto of "ora et labora" makes them extremely good at the manufacturing of high-quality products since the early Middle Ages. Since they view labor as a devotional activity, the monks refuse to build anything that is not top-quality, and build to last potentially forever. For the same reason, however, they are unwilling to expand production in response to demand. They are also unwilling to raise their sales prices, because the Rule of Saint Benedict explicitly forbids it, on grounds of greed being a sin. This creates a rationing problem for the high-quality, fair-priced goods produced in the Monasteries.

The problem has been solved by the rise of clusters of startups, which huddle around the monasteries implementing the business model known among venture capitalists as "Grow



and Multiply ": reverse engineering products of the monasteries, and adapting them for large-scale industrial production. They have an aggressive hiring policy targeting lay Brothers and Sisters, or individuals that, after an apprenticeship in a monastery, decide to remain in the saecular world. This symbiosis of religious and lay manufacturing activity is an example of dual economy.

Much of these activities takes place in the Kyrie region, home to most of The Covenant's Benedictine monasteries. While the Officium and the area around the Monastery of St. Benedict have become the center of knowledge production, Kyrie has become the City's workshop, playing a role equivalent to Shenzhen in the 21st century.

Education and Finance

The neo-Jesuit Order runs several higher education institutions, called *Collegia*, in The Covenant. Though each only admits a small number of students per year, they enjoy a high prestige. It is common for graduates from the *Collegia* to be quickly hired into senior research and teaching positions by larger universities, both in The Covenant and in other Distrikts, which in turn educate and advise the élites of Witness. *Collegia* alumni maintain strong networks with each other and their former home institutions (*Almae matres*), so that the influence of the latter on the city's academic community is much larger than their size.

The <u>Institute for the Works of Religion</u> relocated to The Covenant in the years following the approval of Resolution 430. The Distrikt Council and Mayor's Office's hands-off approach to religious institutions has encouraged the IWR to engage in substantial financial innovation, though, for the same reason, much of it remains relatively little known. A swarm of brokers, almost all of them Als, has formed around the IWR's activities.

Community and Censorship

It should be noted that the Covenant enforced censorship on many things it deemed immoral, although post-Cottica, these bans have become increasingly looser. The story of her flight is well-known, and instrumental to the existence of the Migrant Train that now runs between distrikts: the State Machine declaration that people who want to leave an area should be allowed to do so has since led to some small migration to and fro the Covenant (particularly between Libria), and a significant drop in complaints from the region.

This new position has been approved by the State Machine as being completely consistent with the Benedictine way. After a probation period, residents pronounce irrevocable vows of poverty, chastity, obedience and stability; but there is no other penalty for breaking them than losing the monastic community that welcomed them.

Nevertheless, a form of lèse-majesté is in effect around the Auctoritati, the Officium and its institutions, and the Ordo Operarum. Urban legends and casual conversation in the



Covenant may refer to 'white vans'; these are the infamous vehicles of the Officium's *Inquisitores*, a parallel police force, staffed by lay brothers and sisters and "advised" (that is to say, commanded) by senior clergy under special dispensation.

Topography

The Covenant is notable for its comparisons to a city out of pre-Sundering history: Riga, Latvia. Spread over multiple artificial 'rivulets', this sprawling Distrikt espouses an art style set by the tastes of the Auctoritatis. Immense arches, exposed concrete, salvaged bottle-glass painstakingly arranged into magnificent frescoes, decidedly classical statues, steep churches built over decades with hardened stone-colored plastic and steel - this is the signature of much of the Covenant. Church roofs double as solar panels for churches and their surroundings: in this way the religious powers are directly connected to the infrastructure, and the well-being of many a business and household depends on tithes and the good favor of their local priest or monastic superior.

Digital Technology

The Covenant's approach to the governance of digital networks is similar to that of governance in general: the digital world is conceptualized as a dual system. One of its parts, religious, is centrally and tightly managed by the religious authorities: this is often referred to by monastic engineers as the City of God. The other subsystem, secular, is only loosely regulated and mostly left to its own devices, except for censorship. in brief

The City of God and the Gates of Fire

The Covenant's nuns and monks need access to digital networks; after the Zero-Day fracture, as they took a leading role in the newly constituted Distrikt's society, this need became more pressing. The Fathers and Mothers superiors, however, saw a lot of digital activities of Witness as chaotic, when not outright sinful, and unsuitable for consumption by their flocks. As a consequence, they started working on an ecclesiastical digital network, which would be completely sealed off from the secular ones except for a few, carefully monitored, gateways. Its center of operations is located in the Library of Saint Benedict.

This network, nicknamed Ecclesia or the City of God, initially contained theological and liturgy resources, as well as simple messaging services for the monks to communicate with each other. But it quickly expanded and complexified to vast libraries of all human knowledge, schematics, datasets, repositories of software code, and so on.

For its users, the main advantage of the City of God is the exceptionally high quality of all



its resources. Technical standards are seamlessly inter-operable; all resources are maintained by members of the clergy and lay brothers and sisters, and, as this is work they offer to God, they do it well. There are no "404 not founds" in heaven.

The flip side of that is that any information that is added to the City of God's server needs to be vetted for trustability before. Also, anything deemed sinful is excluded right off the bat. As a consequence, the City of God is nowhere near as rich and organic as the secular digital networks in Witness, and is rather more like an exceptionally large and well-maintained Intranet. To achieve such tight control, the City of God is mostly a readonly network. Anyone in Witness can access it, but with read-only permissions. Read-and-write permissions are reserved for nodes inside the City of God itself, managed by monasteries and other religious institutions. A very few exceptions are made: some (mostly statistical) information originating in the State Machine, and The Covenant's and other Distrikt authorities is directly ingested by the City of God, through tightly policed and tripwired gateways, nicknamed the Gates of Fire.

Among other things, the Gates of Fire incorporate sniffers that block and erase any bot; the principle is that any agency within the City of God should be *human* agency. Al agents are considered to have a dubious theological status, and the Officium appears to be in no hurry to resolve those doubts. Spiders and other bots can, of course, crawl the City of God using read-only public access points.

The digital resources in the City of God are highly appreciated, and widely used, all over Witness. The monks emphasize the importance of maintenance, curation and documentation, humble, important work that pleases God. As a consequence, the integrity of documents and datasets stored therein can be trusted, with a high degree of confidence.

Censorship

The secular digital networks in The Covenant are only loosely regulated insofar as technical standards, business models or services are concerned. However, The Covenant differs from most other Distrikts insofar as it tries to censor their content. This is motivated by the need to provide societal stability in a mostly religious polity. The Inquisitores, the Officium's police force, has a well-staffed cyber division, which crawls the networks in search of potentially destabilizing content. The offending servers from outside of the Officium's jurisdiction (most of them in Libria or the Assembly) are blacklisted.

Notable People



The Auctoritatis is an institution unto themselves. The opulence of their surroundings, the tight security, the almost mythical taciturnity of the upper levels of the Officium, and the moral authority combine to make the leader of the Covenant a tourist attraction and an extremely powerful religious figure throughout Witness.

Imagine her sitting by the docks, seaside, by the light of a dying sun, with a fat and angry-looking orange cat next to her. She has grey hair and a left hand that looks badly scarred. For the last so many years she's been advising the Migrant Train Committee on the yearly train-route optimization, which at its basic level is a variant of the Traveling Salesman Problem with some political tension thrown in. I know because I serve on the same committee.

Today she has proposed a new idea: using the number of connected districts - and the radius of the train-circle -as a measure of how diverse this floating megacity is. But we both wonder whether size is a reliable indicator of diversity, given recent events; distrikts have seceded in the past, and she is deep in thought about whether there is an optimal arrangement of distrikts that enables even the most polarized of them to connect to the superstructure without fighting too much.

Every so often she looks up as the train passes by and pets the cat absent-mindedly. The cat, of course, does not care.

- Anagram Dias, aethnographer, *The Assembly*

Arguably the second-most famous citizen of the Covenant is **Cottica**, the anonymous poeteconomist who has revealed so much about the inner workings of the Covenant.

Originally hunted by Covenant agents, she was extracted and offered asylum in Hygge; she has since gone on to study both the Assembly and Avantgrid (she has a noted dislike for Libria) and has been accorded honorary citizen status in both those domains. Very few people know who she actually is, or can recognize her; all that is seen are respectful snippets like the one from Anagram Dias, which appeared in *New Horizons* serial 641.

Special projects

The Distrikt Minor of Viriditas, located in a narrow peninsula at the extreme periphery of The Covenant, is home to a large congregation of **Teilhardite monks**. This is a reclusive order inspired by the works of the biologists-saints <u>Hildegard of Bingen</u>, <u>Pierre Teilhard de Chardin</u> and <u>Stuart Kauffman</u>. The Teilhardites farm both the land and the sea, using minimally invasive techniques that make large use of genetically engineered organisms, but in Viriditas they live only at sea. They have built a large monastery, dedicated to Saint Hildegard, out of connecting a large number of boats and rafts. This technique gives Saint Hildegard its peculiar appearance, and has earned it the nickname of Floatsam. They have announced



that their mission is to build and launch the Saint Cristopher, a slower-than-light starship for interstellar colonization, conceived as a deep space monastery. The project has an estimated duration of 400 years, with the first 300 dedicated to developing blueprints and the ancillary technologies.

Footnotes

Much of the Covenant was built around Alberto Cottica's writing <u>around the Benedictine way of doing things</u>. Church-led economies produced many of the great works of architecture that dot Europe, creating staggeringly ambitious, multi-generational plans and executing on timescales that seem almost impossible in today's five-years-to-IPO world. Another major source of inspiration is Neal Stephenson's magnificent <u>Anathem</u>.

Ancillary reading can be found in many sources, including (but not limited to) two sources that keep popping up - *Prayer*, *Patronage*, *and Power* by Penelope Johnson and *The Plan of St. Gall: A Study of the Architecture and Economy of, and Life in a Paradigmatic Carolingian Monastery* by Walter Horn and Ernest Born. But these books are terribly difficult to find today, especially in COVID times: for those looking for an easier read, though, Ken Follet's Kingsbridge series of novels - especially *The Pillars of the Earth* - comes highly recommended. An interesting parallel can be found in Sri Lanka, where combinations of monks, and kings looking for glory, have resulted in veritable cities of shrines and Buddha statues (see Anuradhapura and Polonnaruwa) and a network of artificial reservoirs that still irrigate lands hundreds of years after their creation.

FAQs

Replies by Alberto Cottica

1. What is the Covenenant?

The Covenant used to be a Distrikt in the central administrative division, but then it's first elected leader, who was herself a Roman Catholic, decided to pass a law encouraging and protective of religious freedom. As a result, a lot of the religious institutions of Witness as a whole decided to relocate to this Distrikt. That ended up being the religious center of the city as a whole. I'm an economist and Witness is, after all, a project of the Science Fiction Economics Lab. A really interesting bit of all this is that, this Distrikt of The Covenant is an excuse to explore how a full fledged economy would work if it was based on monasteries rather than firms

2. How do you environ the economy of Covenant works?



This starts from a long-term fascination that I have had for the Benedictine movement. It used to be that monks were hermits. So the first wave of monks, Saint Anthony was the leading figure. We are talking about the sixth century more or less. They were people who escaped the decay of the metropolis of Rome in particular, but at that time in advanced state of decay, the empire was falling to commune with God in the solitude of nature. But then what happened is that most of these people went mad because they would find themselves in the divine presence and only the divine presence, 24 hours a day. That's like advanced monasticism, and so the innovation in the coming centuries, and there Benedict was the leading figure, we do this in communities and we help each other stay sane.

Benedict's own innovation was to introduce work as a way to commune with God while staying safe in the community. That was a very elegant move because we already had communities, so monasteries, where monks would gather together and they would worship God as a community, but now with work, the monks would strike three targets with one shot.

Target number one, it was a form of devotion. You offer your work to go. Target number two, you make your community more sustainable. You build better monastery, for example. You can grow some agricultural produce that you can eat. You can use it for your devotion. You grow the wheat to make the bread, to celebrate mass. But also the wheat to make bread to eat. Sustainable both spiritually and materially.

So essentially you would have a very elegant move because by dedicating work to God, the monks were able to celebrate their devotion while at the same time strengthening the community, and at the same time becoming an economic unit of production. Then what happened over the centuries was that monasteries became very successful as an institution, culturally, but also economically. Culturally, they covered the whole of Europe. By, let's say the 13th century, you have them everywhere.

From the humble beginnings of Benedict in Monte Cassino, you had from Ireland to Poland and from Portugal to Sweden. They had become the tip of the spear of the Holy Roman Empire. Economically they were prospering. The most interesting economic example might have been that of the famous monastery of Cluny, which at the peak of its activity was serving 10,000 hot meals a day to the poor. So that is like substantial logistic effort, even for a modern company, and they were doing it a thousand years ago. Even now, monasteries do not lack for anything. I interviewed a Benedictine abbot. As an economist, I was asking him a lot about, "What is this and how do you work as an economic unit?" And of course they work hard because they are offering the work to God. Why wouldn't you work hard?

One clear example of the sustainability of such a model is the fact that still today, they are successful communities, which not only thrive spiritually, but also economically. They have substantial activity. If you're based in Brussels, we know very well about the Trappist beer, for example. Some of them are still based on production which is related to the monastery kind of community.

Not only that, but even the choice of the activity that the monasteries make is also kind of interesting. I have indeed a point that connects to your Trappist example, which is that this Benedictine superior that I interviewed years ago, this was an American monk, based in Italy, and at one point he was starting this new monastery. And they said, "Okay, what do we do to make the monastery sustainable?" And this was in Umbria, in the center of Italy, the core of



the country, where of course the production of wine is widespread, and so the monks made beer.

Their argument was, we don't want to compete with the locals. We want to make a product that will be welcome in our community, will not make us the sort of people from outside that come and displace local business. Problem was, nobody had any idea of how to make beer. So they dispatched Brother Paul to Belgium, and they told him to come back a master brewer, and that's what he did. So now they're making beer in, kind of Trappist beer, I have to imagine, even though they're not Trappist monks, but regular Benedictine monks, in Umbria.

3. How is the economic system similar to or different from capitalism?

It blends elements of traditional proto-capitalism and elements that are completely outside the logic of the homo economicus. When you look at the monastery and how it works as an economic unit, you are led very far away from the idea of homo economicus. Let's summarize it. The homo economicus is a computer, is a perfectly rational maximizer. The idea of the production units, of the individual worker, is that the worker prefers to rest, leisure, but he will sell some of his time for money. He will balance leisure against time, against the income, and then the labor will be bought by an enterprise, a firm, that then will put it in to a production function and output some kind of product that then they can sell. What is the goal of the firm? To maximize its profit. So it's all home economics all the way down. The worker is maximizing their whole wellbeing, as a mix of leisure and income, and the company is maximizing profit.

If you take away the worker, and you replace the worker by the monk, it's a completely different dynamic that gets into play. So why is the monk in a monastery? And being in a monastery is really hard. So the guys that I talked to, they get up at 03.30 in the morning, they work like dogs until bedtime, and by work I also mean the devotional work, which is for them the most important part of the day. This is their prize. At four in the morning they chant the morning rituals, and then they have the mass every day, and then they have the confessor in the monastery, et cetera. This is the reward. This is the objective. As part of that, they also produce. They produce like praying. So the Benedictine motto is ora et labora, so it's work and pray, and it's really kind of two sides of the same coin. There's no maximization here. There is just a communion with God, and one of their activities, not the most important, but very important one, of communing with God, consists in work. What happens is that work is not a necessary evil for the monk the way it is for, let's say homo economicus laborer. It's something that the monk wants to do, and he wants do it well.

So there is this monastery. The same one, actually, I was mentioning before, in central Italy. They have a little shop in which they sell their own products. So local farmers come over and say, "Brothers it's very nice little shop you have, would you also sell my products?" And they say yes, because they want to be nice neighbors to these people that live around them, but then after some months, the monks ask to talk to the superior and they are troubled. They are spiritually troubled, and they say, "Father, this honey is not good. The quality is not good.



We are selling in our shop, honey which is made without love. It is not being dedicated to God. It is made for profit and made badly, and we are troubled." And the superior decided, "All right, we won't do this anymore. We won't sell anything that we don't make ourselves."

If you look at the monastery as a profit-maximizing firm, this is the wrong move. Why would they do it? They had the shop anyway, this was an extra stream of income, they had to do very little for it. It made sense, but spiritually didn't make sense. There is another similar anecdote, this time from America, from a monastery in New Mexico that hit, this is like in the nineties, upon making websites.

Some monks persuaded the local superior. You know, this is a good way that we can do it. It will sustain the community and we can dedicate it to God. Maybe they started from religious websites, I don't know, but then the dotcom boom came and there was so much demand. So the monastery was going really well as a company, but of course this was taking a toll, and in the end it was going into spiritual trouble. Result: the superior said, "We are not making websites anymore. We are moving into growing mushrooms." This is a very successful way of organizing production, that nevertheless is the farthest thing you can imagine from capitalist companies.

What happens in Witness? What happens in The Covenant?

We try to imagine how it would work. First of all, we can imagine that The Covenant would be really good at manufacturing. Why? Well, of course, monks are good at manufacturing. This is an observation that is historically true, but also, monasteries are very good at long-term thinking. They are not constrained by our quarterly returns on investment, because they think in millennia. You can imagine monks sitting down and imagining new things to build for the glory of God, and some of these new things will be really crazy stuff, that no reasonable capitalist firm would ever build.

For example, we have a sub-Distrikt called Viriditas, where we imagine in The Covenant that there is another order of monks that is building slower-than-light interstellar colonization ships, which will take about 400 years to build, the monks estimate. They can do that because when you think about it, the monks are the best people suited to do slower-than-light interstellar travel, because monks have a vow of stability. They never leave the monastery. You can make the star ship into a monastery, and you're basically cool. As a result of this, you have this really advanced manufacturing that is going on in The Covenant, but remember monks produce for spiritual wellbeing, which means when they hit on something which is a huge commercial success, they will refuse to increase supply in response to demand.

When they hit success, they refuse to get more production in order to meet the demand, but this makes their goods also more rare and more precious and more valuable in the market. If from one point of view, it's somehow not really following the rules of the market. From a capitalist mindset t's a smart way for creating more value out of your own products, because they are more rare and more scarce. But they don't do that, because this is explicitly forbidden by the rule. Benedict's rule says you should price fairly. They can change the prices, but they have to price fairly. This is an absolute imperative. I mean, St. Benedict was thinking about economics, and he has a pricing rule, in the rule.



4. Why does it at all make sense to have a distrikt which is based on religious thinking? Does it make sense even if you don't believe in religion?

Part of religious thinking is economic thinking. Greed is a sin because it damages society. Benedict doesn't want that. In The Covenant, what happens when you... Just like you said, there are these fantastic goods and services maybe, and then people want them, but the monks refuse to make more. Answer: there will be knock-offs. So we imagine that in The Covenant, you actually don't have that many monasteries. The monasteries are the backbone of the economy, but each of them is surrounded by a bunch of capitalist companies that imitate and cater to the bigger market with knock-offs of the true monastic goods. An exploitation mechanism, if you like. We imagine that these companies would have a very aggressive hiring policy, trying to target the lay brothers and sisters that spend some time in the monasteries, and they immediately promoted to senior managerial positions and all kinds of stuff.

5. In the covenant is there any kind of conflictual relation between the monks and these capitalist firms that somehow live on the back of their creations?

No, we have not imagined a conflict, and I was trying to imagine what the monks that I have talked to over the years would say, and they would probably say, "Actually, these guys are solving the problem for us. We don't want people knocking on our door to make more hovercrafts, because we make three a month in this monastery. They are good. We offer them to God. They keep us occupied. If we had to make six, it would be a stress. It would mean that monks would start to miss some functions, not good. So we just keep on turning... If we let the universe engineer it and sell it to the united people out there that care about this stuff, all we need to do is to maintain our monastery fed and water. That's it.

It's a very interesting dynamic because to a certain extent, they're very much concerned about the community, but somehow they also have a limited scope in intervening in the affairs of the world. They contribute to technological advancement, manufacturing. They do this with the spiritual engagement, but their engagement only last until their own capacity, but they're not engaged in a political struggle to say, "Because of our ethics, we want the rest of the world to be like us." They're not doing that. They're not imposing anything.

To be a monk means that you get to separate yourself from the world, from the secular world. That's your benefit. You leave them outside the monastery gates. Certainly you don't want them to be like you, you do want to maintain good relationships, and then there is one case in which you would intervene, which is if you think you're doing God's work in doing that. So when benedictines decided that it was worth it to try and feed the hungry people around their walls, they were still doing it for themselves. By doing this, we commune with God, we become better Christians, but that didn't mean that we were trying to convert others, necessarily. And by the way, during the middle ages I think there must have been period where the monasteries were the beacons of technology and advancement.

There are abbeys here in Belgium that are amazing. Like hydraulic works that must have



been the absolute tip of the spear of the technology of the time. You could go and gawk and marvel, and then they did it because it supported the community in what it needed to do, and it's very important to note that the production in monasteries in the Benedictine movement originates with the liturgy. So they started growing wheat to make the bread, to celebrate mass. What do you need for mass? You need bread. So you need to grow wheat and you need a mill, and then you also need wine. So you need a vineyard and then you need something to treat. Barrels, for example. So you need to make the barrels. You need a book, which means you need to have sheep and scrape for vellum and make manuscripts, and so on and so forth. You need a house, like the house of God needs to be pretty. You need masonry, and all of the economic activity were initially directed at the liturgy. They only touch money in so far as it's directed to the religious life.

6. The monks are not the only kind of religious institution represented in the Covenant. How do they coexist in the economic scheme?

In The Covenant, we imagined that other religious institutions that are not necessarily Benedictine monasteries would also relocate. One of these is The Institute for the Works of Religion, that actually exists in our world. Italians know it well because it was the center of a major scandal back in the eighties, and this is a kind of early bank of God. So it is a financial institute, governed by a board, which is appointed by the Vatican, and so on and so forth. The Institute for the Works of Religion relocates to The Covenant, in Witness. They find themselves in a jurisdiction where, as a religion institution, they're very free. We imagine that they engage in substantial financial innovation. We don't know yet what this innovation exactly will be, and we hope to find out as more financial economists get involved. We imagine that there would be here a swarm of artificially intelligent brokers, they're trading with each other and doing something similar to Economics 2.0 in Charles Stross' Accelerando books, which is basically an economy without humans.

So you have software agents selling software agents, selling software agents. Almost no need for any human activity. Efficiency super high, and also profits are very high, but the human substrate is hardly touched at all. And then we also imagine that there would be a religious footprint on education. That, in the Catholic church, is the province of the Jesuit's order, and we imagine that the neo-Jesuit Order on Witness, they are setting up higher education institutions. We call them Collegia, there's a lot of Latin in The Covenant because it feels sort of mysterious and cool. We are not talking about mass education here. We are talking about higher education institutions, elite. The idea is, like in the real world, to educate the future elite in the ways of God, but then again, we have the dual economy in The Covenant, with a core of religious institutions, and the corona of lay institutions that live off, somehow, or try to exploit the results of the religious ones.

So graduates of the Collegia are quickly hired into senior research and teaching positions by larger universities, lay universities in this case, both in The Covenant and in other Distrikts, but they maintain strong networks. And again, Italians, especially in Lombardia, we know there is a strong economic networking by Catholic entrepreneurs that like to work with each other. This makes for a very cohesive economic system with some antitrust implications, which we'll probably encounter at some point here in Covenant, but so that's how they roll. So if you are a graduate of the college, you have access to all these networks, and even if



you're not religious yourself, you're probably not entirely religious, let's say, it makes sense even from a capitalist point of view.

The great lesson to be learned from The Covenant is how you can have a completely non-capitalist objective, but you can be very successful by also serving the capitalist objectives. Why is this important? This is important because we in the world, in planet earth, are engaged in a transition to post-climate-change world. We need a green transition. The transition means finding economic models that will be different, but will be working even in the common, in the current economic model. If you don't have that, all these new models will die before they can develop.

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7. Could the concept of distrikts work for tackling other issues?

You describe the triad which is manufacturing, with the Benedictine core and capitalists exploiting the innovation. It reminds me also, the idea of Distrikts. I mean Distrikts like industrial Distrikts, where you have innovation, which is fostered. So you have a group of people, like not only Silicon Valley, not everyone would say Silicon Valley, of course, but also other places. For example, in Italy, we have a lot of districts, which have tradition of high level manufacturing in textile, or like Flanders would have been in the middle ages as well, where you have some sort of innovation and these polls, and then people come and get knowledge, and also the proximity is somehow helping this. Then you have the financial innovation with the other aspect, and then you have the education. It's very interesting because you basically laid out three aspects of economy, which are completely important.

You have manufacturing, which is real economy, finance, which is completely transformed into something virtual, and then you have education that somehow should link everything because you need the human resources. So from that point of view, it's a very interesting model because it's complete, and this dual system that you pointed out, what comes to my mind, it's also what's happening on planet earth already, now. Perhaps not necessarily for the best of the intentions, but you mentioned Shenzhen, the dual system and the dual system that exists in reality, of course.

I cannot not think about China, and how it's successful in the world economy by participating in the global markets and global value chains, but at the same time, being very protective of their own system and not dilute their own system into the rest of the global system. And it's, I think a fascinating question beside saying, if it works with China, and if it works successfully in a model like the Benedictine, it works successfully into a simulation, because in the end of the day, what you do with the science fiction is a sort of simulation. Why shouldn't it work for other reasons, for other purposes, which could be fighting climate change, right?



So you can imagine a world in which the monks have taken this mission to heart. Climate is part of God's works, disrupting it as we are doing is a sin. So we are going to kind of cleanse it by fighting it, and we are going to fight it by inventing things that will help this. We don't really care about profitability. We don't care about how long it will take. If it takes 1500 years, so be it. We've been around, we'll be around for a long time. We continue, and then you can use the capitalist system around it as an accelerator. So these guys will not lead because leading in this kind of mission is too risky and the rewards are too long term, but maybe they will follow. After somebody's made the break through then they can say, "Ah, I can make that maybe cheaper, maybe a cheaper material or whatever, and make it more accessible." Which would also accelerate the mission of fighting climate change.

8. Anything else especially worth knowing/digging into in the Covenant?

Yes. There is one thing which is a little bit of my pet project. I already mentioned the Viriditas sub-Distrikt of The Covenant is within The Covenant, but it has it's own specificity, and it is the one that is building the sub-light spaceship. That's called Viriditas because the monks there are in order that has merged Christian religion and modern biology, and that builds on the work of a historical theologian called Pierre Teilhard de Chardin who believed that if evolution was in a sense the voice of God.

This constant self organization of matter in more and more sophisticated forms. A big bang, then the stars, then the planets, then the crystals, then the bacteria, then the unicellular animals, you go all the way up to civilizations. It is kind of interesting to see how this thinking on the complexity studies in the nineties and 2000s has in a way flirted with religion. So that is kind of an interesting place where we could be looking at the deep philosophical and economic implication of modern biological thinking. Let's invite everybody to come in and help. We need everything. We need financial economists, we need industrial economists, we need sociologists, historians, media experts, psychologists, you name it. We are building a world here. And theologists. It would be fantastic if some people from the clergy would like to get involved. We have a lot of time to waste in these kind of sinful activities that don't really lead anywhere, like science fiction. They have less time.









The Dandelion Republic (microDistrikt)

The Dandelion Republic (formerly Lille-Hygge) is a microDistrikt.

"From now, until the end of days, we shall be as the dandelion: adaptable, resilient, and driven by the winds of our ambitions to take root in whichever soil receives us." - Lynn Jirō, poet, one of the seven hundred thousand co-founders of the Dandelion Republic

The Dandelion Republic (formerly Lille-Hygge) is a microDistrikt forked out of Hygge and into unclaimed Avantgrid space. During the Great Reset, the key question was how best to go about ensuring the fairest possible society; while Hygge settled on a model inspired by social democracies, the Dandelion Republic is an exploration of the other possibility: a data-heavy implementation of Communism, where goods are moved around almost entirely by fiat, and with the State Machine presiding over it all. "More Big Mother than Big Brother", as the saying goes in the DR.

Close to a million citizens inhabit the DR, each carefully monitored by the State Machine. Every possible piece of data - from rationing history to movement patterns to message logs - are collected and used by the State Machine to better optimize the functioning of the DR. This is an extraordinarily compute-intensive task, and for this reason the DR maintains tight border control - there is an upper bound to the number of people it will allow inside at any given moment.

DR is thus embraced by some as the greatest experimental policy experiment in Witness's history; others see it as a vain attempt to overcome the Kleinman Paradox by aiming for a perfect predictive system. Citizens of DR willingly carry out the State Machine's orders, while outsiders, such as the Hygian architect Patrick Ayademi, have reviled it as a 'Panopticon of sheep'. Some conspiracy theorists argue that the State Machine is so all-powerful in the DR that it has somehow managed to factor in the people themselves as processing nodes that help it arrive at decisions - akin to training an ant colony to solve sums - but this is often dismissed by the aethnographers of our times.

Control arguments aside, the Dandelion Republic has repeatedly shown itself to be very capable of tackling externalities: its divers, marines and sailors have mapped out a significant portion of the world around Witness, and it trails only marginally behind Libria in the sophistication of its seafaring technology. Dandelion scientists, bent on increasing the State Machine's computer capacity, have created the ternary transistor and associated mathematics; provided their citizens with a high-speed, wireless information interchange network, using a highly resilient peer-to-peer architecture that can extend State Machine



services to everyone; and have now established brief contact with Byzantium, one of the oldest cities of Project Viking.

Political History

The Dandelion Republic began as a fork from Hygge. Informally titled Little Hygge, it gained very real presence when 700,000 citizens signed a petition supporting a planned economy. Taking core ideas from pre-Sundering Marxism, the central argument of Proposition 113 was that enough compute power existed within the State Machine to observe exchanges and citizens *well enough* to overcome the traditional inefficiencies of a highly centralized system. Thus, it reasoned, most goods and services could be moved around entirely by fiat, and those willing to submit to reasonable wealth caps would be able to build a society that was more equitable to all.

Many saw this as a logical way to prevent the kind of class divisions that had plagued Denton's administration and society. Famously, the Social Reconstruction and Historical Analysis Project, a group of aethnographers and Hyggian politicians, drew from their historical simulations and the work of a pre-Sundering philosopher named James C. Scott, and led repeated, public counterarguments to this proposal. The debates and the political hold-up angered many who merely wanted a return to stability. CIVICSMOD programmers Gregor Samsidel, Janet Samsidel-Chiang, Erwin Lugoda, Peter Kleinman and Antonia Rybakov, in conference with the State Machine, proposed a split. This was then sanctioned and a cluster of unclaimed Avantgrid islands allocated for the new microDistrikt.

Of the 700,000 who signed, most relocated to the new region as co-founders (note that DR refers to 'seven hundred thousand founders', but this is apocryphal). Led primarily by Aethnographer Tomas Dieters, they drew from Denton's original contractualist bent to formulate and sign a social contract that would apply for all citizens of the new area. This contract calls for each citizen to cooperate with each other and the State Machine to:

a) ensure sufficient housing, food, drink for everyone b) create public spaces and services equally to serve everyone c) build an economic model that ensured that every citizen would have meaningful work and make a contribution to society d) co-operate on looming externalities, whether physical (ie: climate change or resource scarcity) or cultural e) to take no more than their just share in rewards from any of the activities above, and to institute and uphold a body of laws that are human-readable and apply equally to all

This contract, rather fittingly, is titled *What We Owe to Each Other*, and is the State Machine's overall mandate for governing the Dandelion Republic.Because of the evermutating nature of fairness and morality, the State Machine conducts mass polls every year to better understand what the citizens of the Dandelion Republic consider to be fair; these polls have become semi-famous for their philosophical problems, especially those that involve Trolley Problems.



Those who violate the contract, or those whose ideas of fairness seem severely out of harmony with the whole, are asked to board the Migrant Train for a Distrikt more to their liking - a form of automated ostracism.

Economy

The Dandelion Republic has historically objected to aethnographers who attempt to understand its economy by conventional measures. Dieters, in drafting DR's social contract, famously noted the flaws of previous planned economies in aiming for 'exuberance, plenty and wealth' - which he felt skewed the metrics of analysis, which in turn led to failed decisions.

The economy of the Dandelion Republic optimizes for zero long-term unemployment, and to enable sufficient goods and services available for all inhabitants. Unnecessary destruction of resources is eliminated, since duplication, overproduction and competition are prevented.

To underpin this, the State Machine operates the Dandelion Time Bank, which awards *time credits* to citizens according to work done. Work can be voluntary (such as tidying up a space) or based on a selection of daily 'quests' provided by the Bank; all work is credited, including traditionally unpaid labor, community services and care work.

These credits can then be used as a currency. The value of items and services are pegged to the amount of time credits used for their creation. A minimum number of time credits are available to all every day and there is a rolloff, past which there are steeply diminishing returns on work done - thus, there is a cap on the amount of time credits anyone can hold at any given time, and leisure is baked into the currency system. To catch what it cannot monitor, the Bank maintains a peer exchange where citizens can also gift time credits to each other. This allows public donation for those whose work is difficult to quantify by the number of hours spent on it, or those who refuse to charge for their work. Any donations past the cap are added to the pool of time credits shared out to citizens the next day; thus, outpourings of public generosity lead to better outcomes for all.

Trade with other Distrikts is handled by the Bank on behalf of the DR. Typically, currencies from other Distrikts are converted to goods and services that are then brought in on the cargo compartments of the Migrant Train. The DR has a thriving technology community that specializes in public-interest software and hardware: these are often monetized by the Bank for sale to other regions. A money-time exchange is being currently trialed.

The Arts

Special attention has to be given to the DR's arts and culture, as the DR themselves do. The reigning school of thought within the DR is the aethnographer Eschaton's thesis that the State and the art it produces are intertwined: art, according to Eschaton, acts as propaganda



whether meant to or not: it either preserves social order by agreeing with *the aesthetic sensibilities* of the State or nudges society towards new orders by rebelling against said aesthetic sensibilities.

Thus the DR spends significant compute on incentivizing works that broadly act to illustrate or expand on themes within the social contract of the DR. These incentives present themselves far outside poetry and paintings - architecture, being viewed as a physical representation of ideas, sees a great deal of investment and oversight.

While public donations are widely touted, much of the support, network-building and equipment come from the Dieters Cultural Seed Fund, which uses State Machine data and insights to fund what it calls "new expressions of our Republic":

"It is inevitable that there will be a movement in search for a new "expression" of this Republic. Our project is unique in its nature and social contract; it also provides new perspectives on society and humanity. In a society based on the premises of "just and sufficient" arts will reflect that too. To capture the honest essence and core of our beliefs is no easy task, but it will be all the more noble for that. This "search for the essential" within ourselves also lets us understand the currents of society in a way that we can discuss, debate, and come to a consensus on; a map of society not just visible to the State Machine and its data scientists, but to all." - Tomas Dieters, curator, founder of the Dieters Cultural Seed Fund

However, art is subjective, and herein lies the tension - there is also a significant cabal loosely known as the *post-expressionists* who see it as their duty, right or calling to interrogate and deconstruct. Much of the funding for post-expressionists comes from outside the DR.

In recent times, as the DR becomes more independent, the expressionists have evolved into something that other districts criticize as a propaganda machine. Poets such as Lynn Jirō are increasingly seen as ambassadors of the DR's ambition to become a full Distrikt in its own right. Within the DR, noted post-expressionists and critics of expressionism are sometimes insulted as 'parasites' - being within the system, supported by the system, and yet speaking out against it.

Topology

Much of the Dandelion Republic is a work-in-progress, but due to the surveillance requirements inherent to the system, the DR's population is arranged in tightly knit clusters across two islands titled Root and Stem. Root houses the majority of the industry, the better to keep potential pollutants away from residential areas. Stem contains agriculture, public parks, provision hubs and public housing (there is no private housing in DR). Bridges and ferries stitch the two together. Expansion is ongoing into a third and fourth island, titled *Flower* and *Seed* respectively: *Flower* is meant to be a separate region for scientific



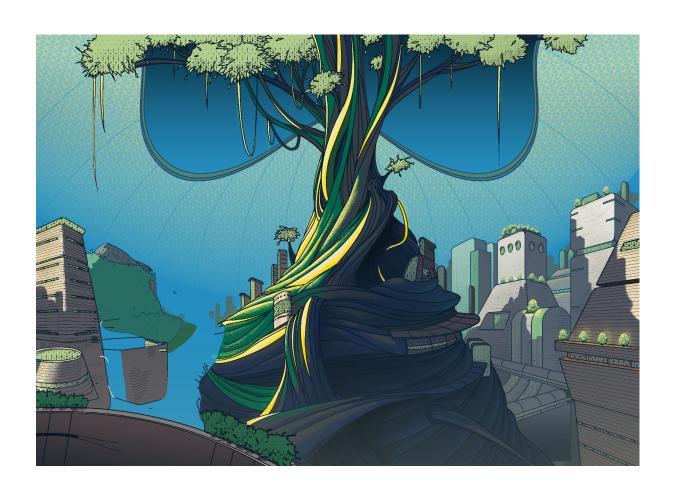
experimentation and education, and Seed is a rapidly expanding naval hub.

Notable People

Even in a Distrikt where everyone is equal, exceptional efforts resonate. **Tomas Dieters**, primary compiler of the social contract, is one of the highest authorities recognized in the DR; the Dieters Cultural Seed Fund is named in his honor. Dieters also enjoys a rare status as a guest policymaker in neighboring Hygge, out of respect for his skills.

R. Cahn, Governor-Servant of the Dandelion Bank, has been a steady pioneer and refiner of the DR's system of exchange. While the State Machine maintains the in-Distrikt exchange and the price of goods, Cahn oversees the infrastructure (both physical and otherwise) in implementing and maintaining an equal quality of service for all.







Hygge, the first Distrikt

The political history of Hygge begins with the founding of Witness itself.

Hygge (formerly Distrikt 1; alternatively, Hygge) is the first Distrikt of Witness. Initially meant to be "the nervous system of Witness" and the seat of Denton's power, this Distrikt went through a tumultuous time after the Zero-Day Fracture set in motion a chain of events that would see Distrikts seceding and throwing aside the careful top-down planning engine that Hygge was designed to be.

Today, Hygge is a democratic socialist structure, with a military presence left over from the short but bloody history of the Marches and the Distrikts that broke off. It is still an emblem of power, the seat of many debates for representatives, and boasts perhaps the single largest peacekeeping presence in Witness. Outside of the Library of St. Benedict in the Covenant, Hygge is the only Distrikt truly critical to the State Machine's existence, as it houses key hardware, along with CIVICSMOD, a multi-distrikt team that operates the machine.

However, it is also a symbol of what some aethnographers dismiss as the classical 'broken tower' - an ancient institution and aesthetic, living long past its usefulness, stranded in a world that has moved on.

Indeed, Hygge itself has fractured at least once: the Great Reset of 22 0D led to stor-Hygge ('Big Hygge') and a budding microDistrikt, lille-Hygge ('Little Hygge'), both running very different social contracts. Nor has its naming remained consistent. After Little Hygge established itself as the Dandelion Republic, 'Big Hygge', by default, became Hygge, even smaller than it had once been.

The politicians of Hygge maintain, of course, that their way of living makes a lot more sense, and indeed has learned from the mistakes of the past: whether the citizens agree is something learned only by traveling there.

Political History

"Look around! Forget these halls and look to the streets, the pylons that come up even as we think these thoughts. The real grievance of our citizens in this post-Sundering world, is not the work, but the insecurity of their existence. Our people are not sure whether they will be healthy; whether they will live to be old and unfit; whether they will be taken care of in their turn, as their grandparents once did and were. They look around as they see a world where every square of land is critical, where every resource matters, and ask themselves what happens if they fall into illness, or into bad company, and whether society will recognize any obligation other



than to use them and discard them once their time has come. We have called upon them to rebuild the world; we must ensure that they have incentive to do so, not just for their children, but for themselves." - A Record of a Seabourne Few , J.C. Denton, Manifesto . Now collectively known as the Old Manifesto.

The political history of Hygge begins with the <u>founding of Witness</u> itself. Initially built as an administrative town, Hygge was intended to house Denton and the various committees that would govern Witness, the CIVICSMOD team, and a host of support staff that would maintain this system. As Distrikts began to demand their own space, people from all over Witness who wished to stay true to Denton's vision were resettled in Hygge; as the Marches turned violent, and as the threat of military action grew (especially with regard to Libria), more refugees began to arrive, and the former Potemkin-like facade turned into an active population hub.

In the beginning, Witness (and thus Hygge) was designed to be a system where good were moved around exclusively by fiat, subject to decisions by many tiers of Committees and Working Groups, with Disruption Labs charged with being cross-domain superconnectors and bringing innovations 'from the outside to the center'. Denton's original plans seem to have been to transition to a limited market structure; notes from his *Manifesto* describe his admiration for pre-Sundering 'Tiger economies' - where once the population started growing, selected individuals would be given monopolies on the production of certain critical goods, and competition allowed to come into play a decade or two after the fundamental infrastructure had been set in place.

Ultimately, Denton's goals seem to have been an economy where the state - with him as the de facto head - controlled the supply of energy, healthcare, law and order, and funds for dealing with climate change externalities. The State Machine was installed and calibrated to impute data gaps and create a hyper-efficient allocation of resources among 'the First Million' that would inhabit Witness.

Denton's plans, however, relied on a tried-and-tested cohort of trained staff loyal to him, to whom he could hand out monopolies without fear. Witness actually set sail with a far more diverse population, and indeed a large part of dissent arose because of this favouritism and because population growth far outstripped Denton's planned ramp-up times. Denton cronies were seen to be dynasty-building, while the worker population that had joined Witness at launch were given very few options - either to join the police, and gain some power at the behest of bureaucrats, or to be treated as labourers paying for their passage with sweat.

Post-Fracture

Post-Fracture Hygge was called Distrikt 1, and it did not stay in that state for long; both the Assembly and Libria broke away shortly after, leaving Hygge to deal with waves of migrants, a rapidly expanding military presence and very real fears that Denton was subverting state



mechanisms into a wartime dictatorship. Both personal and government records show an overemphasis on influencing the affairs of other forming Distrikts and a dismissal of internal issues of Hygge proper (the name here being loosely used, as the Distrikt took years to be officially named).

"No, you don't understand. He gave me an executive order to send all of his rations to the new espionage crew. Do you get what I'm saying? Denton is so into his shit, he won't have anything to eat. God have mercy on us." — Larry Quoia, former Second Secretary of Witness, messaging records

Four weeks after the Fracture, the State Machine would start recommending an 'early retirement' for Denton as part of a management plan, which was ignored for several years, even as the AI raised this recommendation in priority. Accounts confirm that Denton would have fits of rage if any of his subordinates mentioned the recommendation. One way or another, Denton's supporter group was powerful enough that the State Machine accepted their support as part of the implicit social contract of Hygge; even as the mismanagement of Hygge became clear and basic infrastructure started to fail, pro-Denton supporters engaged in conflict with any newly formed anti-Denton faction.

These actions had ripple effects: in the case of Libria, for instance, it led to a solidification of their general anti-statist stance, whereas in the Covenant it created a cottage industry supplying weaponry and armor to loose militias sanctioned by various church orders.

Post-Denton Turmoil and the Great Reset

The years after Denton's death were marked by more management struggle, a period described in Hygge history as the *Letter-opener Wars* - 'letter-opener' being street slang applied to the many bureaucrats that Denton's pseudo-dictatorship had generated. Infighting resulted in Denton's most experienced managers migrating or being banished to other Distrikts, and few chose to return for fear of death threats from the public - which were by now turning against much of the political infrastructure that Denton had set in place. Many of CIVICSMOD migrated to the Library of St. Benedict during this time for their personal safety while adjusting the domains and parameters of the State Machine to account for the new zeitgeist: the rest stayed behind.

The Great Reset campaign, spearheaded by CIVICSMOD programmers Gregor Samsidel, Janet Samsidel-Chiang, Erwin Lugoda, Peter Kleinman and Antonia Rybakov, took years to come to fruition. It began with a rebranding of Distrikt 1 to Hygge - a name carefully chosen to present a particular comfortable aesthetic to the world.

However, the meat of the Reset was nearly stalled by a critical decision: should Hygge have the State Machine running resource allocation by fiat - a hyper-efficient, but still imperfect version of Communism (given all the information problems) - or should it set up a welfare



state with actively mutating policies to reduce the amount of suffering and prevent the gross disparities that had motivated protests in the first place?

In this, public opinion was divided. It was the newly-rebooted State Machine itself that proposed a solution: a Distrikt and a microDistrikt (partitioned according to public opinion polls), each running one option. Since much had yet to be proved about the efficacy of both systems, citizens could freely transition between these two regions - and, indeed, share goods and services across borders, to see if some stability could be achieved. As a mover of resources by fiat, the State Machine would, in one territory, have the authority to directly pass suggestions to citizens to handle actions that needed performing, optimizing based on skill sets, capabilities, proximity and so on. In the other, its role would remain in the realm of policy suggestions based on data-gathering and simulations.

Thus, the big and little Hygges were born. To prevent the State Machine's finite computational resources from being taxed beyond measure, lille-Hygge, the smaller microDistrikt, implemented a bounded population on which the State Machine continually refines its information gathering. After Little Hygge established itself and its own identity, 'Big Hygge', by default, became Hygge, even smaller than it had once been.

This move did not happen without significant dissent. Even among Denton's supporters, there was unrest at the idea of handing over so much control to the State Machine, an instrument viewed by some as dangerously flawed. While CIVICSMOD upholds promises made to release monthly status reports on the State Machine, many took the Migrant Train to other Distrikts as soon as the option became available.

Present conditions

The Hygge of today is embraced by many as a stable, ordered existence, obsessed with the concept of fairness, but equally criticized for its approach of minimizing negative impacts - sometimes at the cost of positive effects. Proponents of Hygge point out what is known as the *Kleinman Paradox* - for any decision involving two groups, three mathematical notions of fairness are possible, and the three are incompatible with each other; there can be proportional calibration out positive outcomes within each group, or groups can be balanced for the positive class, or for the negative class.

This mathematical conundrum - and Hygge's particular tilt towards minimizing suffering - means that Hygge is often devoid of the high-risk high-reward maneuvering available in market structures like Libria. Many a scholar have set themselves upon a quest to break this paradox. Several theoretical answers exist - among them is a scenario where the decision system is absolutely perfect, with definite and accurate answers instead of probabilistic modelling - but no such system exists.



Economy

Hygge runs an economic system inspired by the social democracies of the second half of the twentieth century. The economy is mixed: most manufacturing, retail and services are run by for-profit private corporations. State-owned enterprises control the provision of most public services, like social security, banking, and infrastructure. Additionally, some Distrikt-owned companies compete with their private-sector counterparts in several key markets. These companies tend to provide basic, no-frills products and services at a competitive price: Hygge's policy makers believe this to increase price competition and provide access to those markets to lower-income households.

Targeting of inequality measures

Limiting inequalities is a tenet of the Hyggian social contract, and a key economic policy objective. Indicators of economic inequalities such as the Gini coefficient are closely monitored, and feature in almost all political and policy debates. Augurs keep track of an array of indicators of various inequalities, from the ones (energy, clean water) to more exoteric ones (beauty, inspiration). For most, measurements exist at various scales, from Hygge-wide to the neighborhood. The challenge for the incanters involved in Hygge's policy making is to combine a sustained motivation to engage in productive activities with the presence (and resourcing) of very strong safety nets.

The solution that emerged is a complex web of policies, social norms, and political equilibria. At the micro level, it includes a focus on motivating the working- and middle classes to be more productive by providing opportunities for social mobility. At the same time, politicians leveraged the popularity of the generous welfare system to keep very wealthy individuals in a minority, and prevent them from unduly influencing policy. Wealthy Hyggians often responded by relocating elsewhere on Witness, typically on Libria.

Central banking and management of Distrikt budgets

At the macro level, Hygge is run according to the tenets of <u>Modern Monetary Theory</u>. It maintains full monetary sovereignty, and freely creates its own currency as needed. At the same time, augurs are constantly developing new techniques for making sure that government policies do not overcommit the economy's capacity. Inflation is closely monitored for signs of economic overheating.

Macroeconomic policy is executed by two powerful institutions: <u>Hyggebanki</u>, the central bank, and the <u>Ministry of Provisioning and Planning for Public Purpose</u>, commonly called Mp4 or Hensigt

Hyggebanki is the only legal issuer of the local currency, the Danegeld; it also functions as the main financial regulator. New Danegelds are created by crediting the Hensigt's current account at Hyggebanki. Additionally, commercial banks are allowed to create Danegelds by



issuing commercial loans, but Hyggebanki imposes a tight monetary discipline onto the banks, with high mandatory reserve coefficients. Hensigt destroys Danegelds by taxing them out of existence.

Hensigt is in charge of managing Hygge's Distrikt budget. They do this in a way consistent with the theors' support of Modern Monetary Theory: so, while they do not worry about running deficits between tax revenue and governement expenditure of Danegelds, they do worry about controlling inflation. Macroeconomic policy consists of three main parts:

- 1. Infrastructure provision (water, energy, transport, health care, education...). This is more or less constant over time.
- 2. A Public Service Employment program. Any citizen that wants a job with Hensigt has a right to one. Remuneration of guaranteed jobs is set to be more than sufficient to provide for a fairly basic lifestyle, but noticeably lower than what the private sector pays for a similar job. The PSE works as an automatic stabilizer: when the private sector goes through a recession, it lays off more workers that are quickly reabsorbed into the PSE. This maintains aggregate demand close to pre-recession levels. As the private sector picks up speed, it hires workers away from the PSE. Unemployment remains more or less constant (and low) across the phases of the business cycle.
- 3. Public investments. These are new projects, like major infrastructure upgrades. In order to get the green light for one of these, Hygge political leaders need to make sure that they do not create inflation; and that no competing project is more attractive than the one being considered. Obviously, projects have costs that can be measured mostly in Danegelds, but dishomogeneous benefits: this leaves augurs with the difficult job of deciding between, say, adding a layer of resilience to insect protein production and a new art festival. They do this by a bundle of aethnographic methods, some quantitative, some qualitative, collectively know as dialogic evaluation.

Culture

Hygge, depending on who one asks, is either a dream come true or a disaster waiting to crumble under the power of markets. However, those who made the claim that markets alone drive innovation have found in Hygge an uncomfortable counterpoint: Hygge remains one of the greatest contributors of public-interest technologies throughout Witness, driven in part because of the importance in Hygge culture given to inventors and technological pioneers.

Equal importance is given to bureaucrats who handle the complex machinery that turns the State Machine's suggestions into practicalities, and to a rising class of programmer-politicians who can float new policy ideas as code and prove their virtue by simulation.



However, all is not perfect. Old monopoly connections die hard; some corruption still exists within the ranks of bureaucrats, especially those who lost everything in the Reset.

With their tacit support, black markets operate within Hygge, and street thugs often 'run corners' - operating in areas where the State Machine cannot gather information (usually accidental or deliberately created 'dark zones'), using false IDs and masks designed to confuse facial recognition. An increasing street culture indulged in 'Faraday caging' - wrapping their electronic devices in homemade Faraday cages to prevent tracking by the State Machine.

Much of Hygge's priorities, post-Denton, has been to restore what was lost: this includes not just infrastructure, but goodwill. This recent phase has been referred to as *the Smoothing Years*. With Hygge well beyond its foundation phase, a new, significant parcel of Hygge's population is starting to question the decisions made at the beginning of the Smoothing Years, claiming that their society was modelled after "reducing damage, rather than increasing wonder", thus generating a dull and unmotivated society.

Goro, the Wrecking Ball

So far, a group rallied under the *Glorious Manifesto* flag has released something unique to Hygge: a smaller Al by the name of Goro. This Al's only function is to enact seemingly random behaviour suggestions for the populus as a whole. Those suggestions come in many forms, ranging from small reminders to consume more water to commands to stop any activity immediately and go to a certain location for a flash mob.

Most of Hygge's population ignores Goro, treating it as a joke, but qualitative support has shown citizen support for Goro. Many in CIVICSMOD suspect that Goro is the equivalent of a 'nudge unit' that induces aberrant behavior in life in order perform a function similar to what random mutations serve in the process of evolution, disguising its signals beneath pattern of noise; others suspect Goro is purely aesthetic in nature, designed to add a touch of both serendipity and whimsy to Hygge.

Though the majority of the city disregards Goro in most of its suggestions, a few (less than 3% of the total population) follow its suggestions with a semi-religious fervour. commonly called "goroheads" in street slang, they're generally ignored or mocked; however, some - especially proponents of hygge-Bushido - believe that it merely is a matter of time before a big event pushes goroheads into a greater light than what they occupy right now.

CIVICSMOD and the State Machine École

One of Hygge's most important characteristics is the role that it plays with regard to the State Machine. CIVICSMOD - a consortium composed of programmers and politicians of all of Witness' Distrikts - operates primarily from Hygge. The Library of St. Benedict is officially considered the property of this group, and, as such, confers upon Hygge a significant culture



of and access to knowledge about the computer sciences and the pre-Sundering world.

During the Smoothing Years, Hygge's government made a significant investment in its diplomacy efforts to revert the bad political image it had acquired. One of the most impactful (and arguably effective) actions was the opening of CIVICSMOD to a multi-Distrikt body politics: all Distrikts are invited to send their own delegations to live and work in the State Machine (though still funded by their home Distrikts), and those delegations share the leadership and tasks in the State Machine's care and maintenance.

By popular vote, this initiative was turned into a school for programming and systems design: as part of Hygge's new diplomatic stance, positions and scholarships were offered to citizens of other Distrikts, even minor ones. This State Machine École, or Mach-Eco, was created and is still considered the best AI design training institution in all Witness.

Topology

"Goro told me the blueprint looked like a flower when you saw it from above, can you believe that? I told it I was more going for a fruit sliced in half." — Pat Ayedemi

Seen from above, Hygge is both modern and quaint at the same time: a high-tech state deliberately maintaining an image meant to be warm and welcoming. Wood is highly prized and displayed here, and street lighting comes in the form of solar LED trees - wire and foil that casts a glow over recycled plastic streets. In keeping with its original design - which was to keep Denton's administration at the center - Hygge spirals around the grounds of Newton's Follow, turning into markets, entertainment venues, schools, and public services buildings on the way out. One end of it terminates very near to the Library of St. Benedict; this area is commonly known as the Army Quarter, because much of Hygge's soldier-police officer corps are trained and housed here.

Denton's architectural legacy still remains. Hygge is built in such a way that in the vast majority of situations, people can walk to whatever they need, rather than relying on any form of external transport. This structure forces the citizens to walk more than the average Witness citizen. For those reasons, Hygge is known for its population's fitness, but also for its poor accommodation of people with walking disabilities.

During the Smoothing Years, and particularly under the vision of architect Pat Ayedemi, the city started to move away from Denton's erratic style and actively worked towards its own representation of structures. Heavily inspired by the works of Oscar Niemeyer, an architect of pre-Sundering times, this 'Hygge-design' is marked by a particular radius of roundness, according to Mx Ayedemi: "equally pleasant to the eye and unperturbed by the forces of wind and rain." It is now quite popular, especially among public structures, and has even been adopted in some parts of the Covenant.



Digital Technology

As in many other domains, the founders of Hygge saw the role of digital technology in a way that was similar to that of the Denton era. From it, Hygge inherited the State Machine's critical hardware, and the CIVICSMOD team operating it.

in brief

Digital identities and infrastructure layers

Present-day Hygge's digital infrastructure is supposedly centralized, benevolent and subject to democratic control. The governments claims a monopoly on the identity layer, with government-issue digital identities forming the basis for the provision of sophisticated e-government services. The whole system is tightly integrated: administrative information in all databases is linked together by the unique digital identifiers of each citizen, business, etc. The State Machine processes all these databases to produce allocation decisions and recommendation.

CIVICSMOD and the interchange layer

During the Smoothing Years, CIVICSMOD was transformed into an inter-Distrikt organism. Now, each Distrikt sends a delegation to Hygge to operate the State Machine, for the services that they require from the AI. A technical consequence of this is that CIVICSMOD and its engineering groups have become the de facto seat of the decisions about which cross-Distrikt provision of data and services. Given the politicization of these roles, high-level Incanters from all Distrikts regularly participate in such groups.

Hygge has a Great Firewall in place. Like most, but not all, other Distrikts, it considers that digital sovereignty is only possible if digital borders are enforced.

Social media

Hygge considers social media to be a public service. Therefore, the Distrikt created its own social networking platforms, public sector-owned and controlled. These work technically well enough, and are integrated with other public services; this means that, for example, by participating in patients' support groups on Hygge's social media you can take pride in providing valuable information to the collective intelligence as a common (in practice, to the State Machine); also, you are not targeted by annoying advertisements.

However, the more colorful, dopamine rush-inducing social media platforms from other Distrikts (notably Libria) are not prohibited to operate in Hygge, and many Hyggeans are



far more active on those media than on the Hygge Distrikt-owned ones. This is a source of concern among Hygge's ruling élites, and is addressed by regulatory action. Non-Hygge-based social networking services are only allowed to serve customers in Hygge if such services are run from a subsidiary of the main company, incorporated in Hygge itself. Subsidiaries must allow government observers to sit on their boards, and maintain ongoing dialogue with the authorities. This is, however, far from a perfect solution, because some government representatives on the board of these tech companies end up being "culturally captured", and becoming very sympathetic to the company's point of view. Companies themselves tend to encourage this outcome by lavishing government envoys with luxury fringe benefits of their board seats.

Additionally, many citizens of Hygge circumvent the Great Firewall through various technical solutions, and access such services directly from servers located in Libria.

Notable People

Hygge is home to, among other things, the aethnographer collective that goes only by the name "Untitled". They are most famous for their controversial Shopping Cart Theory:

"The shopping cart is the ultimate litmus test for whether a person is capable of self-governing. To return the shopping cart is an easy, convenient task and one which we all recognise as the correct, appropriate thing to do. To return the shopping cart is objectively right.

"There are no situations other than dire emergencies in which a person is not able to return their care. Simultaneously, it is not illegal to abandon your shopping cart. Therefore the shopping cart presents itself as the apex example of whether a person will do what is right without being forced to do it.

"No one will punish you for not returning the shopping cart, no one will find you or kill you for not returning the shopping cart. You must return the shopping cart out of the goodness of your own heart. You must return the shopping cart because it is the right thing to do. Because it is correct. A person who is unable to do this is no better than an animal, an absolute savage who can only be made to do what is right by threatening them with a law and the force that stands behind it."

Not everyone agrees with them, and they seem sophisticated enough to elude even the State Machine.

Of course, there is **CIVICSMOD**, particularly **Gregor Samsidel**, **Janet Samsidel-Chiang**, **Erwin Lugoda**, **Peter Kleinman** and **Antonia Rybakov**. While CIVICSMOD prides itself on staying above politics, there *is* a hierarchy, and these four are right at the top; indeed, the



Samsidels have more soft power than most politicians.

Susannah R. Basterfield was a key political figure in the transition between the post-Denton years and the Smoothing Years. Fabled for her capacity for negotiation and diplomacy, she was the first leader capable of harnessing power in Hygge without provoking the discontent of former pro-Denton supporters.

She is known for her special care for language, shepherding renaming schemes for many of Hygge's processes and positions so that the city could renovate itself. She is believed to have named the Distrikt itself, though some sources disagree.

Known throughout Witness as "the best thief in the Century", **Jonas Kimura** is a former top-grade student from the State Machine École who turned to cybercrime. Known for extravagant stunts in many famously guarded places in Witness and other cities, and several of his hacks have threatened inter-Distrikt peace as representatives have rushed to blame each other. His whereabouts and current appearance are unknown.

As the architect responsible for the renovation of Hygge's rounded appearance during the Smoothing Years, Patrick Ayedemi's influence extends far beyond Witness itself. Their work is considered a quiet revolution in urban planning, marred by an unsuccessful attempt at forming a cult that removed them from the public spotlight.

FAQ

Replies by Alberto Cottica, Joriam Ramos

1. What is Hygge, how does it looks like what should we know about it?

It depends on the timeframe as the most interesting part of Hygge is the historical process it lived. It is a place that went through a very dramatic transformation and it all started with a man, the visionary, the person with an idea and a dream and a drive to make it happen. This is how Witness and Hygge, which used to be the same thing they came about. There was this visionary need. He convinced a lot of people and he built the thing that he dreamed of, even though nobody knew if it would be necessary in this world building that we created a gigantic climatic event, a climatic catastrophe made the city of Witness necessary, but that's the thing. He was a visionary and visionaries have their uses and their role, but they also have their limitations.

In this case, Denton was not ready for the diversity, that Witness would represent. He had a very clear idea of how life should go about in his project. But once the project was running was real, his mind could not accept all those other forms of living all those other cultural interactions that would happen in Witness. So what happened was Witness fragmenting itself into separated Distrikts. And for the longest time, this man Denton fought the idea of Hygge being a Distrikt. He still wanted to keep that unified version. This almost like nationalistic view



around, but eventually it was very clear that this part that he was controlling, that he was dictating was a different entity from others and it needed to be named and the name of Hygge came later. It is a place that now lives the aftermath of both climatic catastrophe, but also a political catastrophe.

If you want to imagine the beginnings of Hygge, it was a place with many different architectural styles. It was a place that we used to be seen as a tribute to mankind. It would celebrate the world's culture and the world's technology and the world's arts. But as the place evolved and evolved, evolved, it was a search for efficiency, a drive to find the common denominator of everything. So more and more Hygge's architecture started to get planned. It looked like more of a place that was designed by someone than something that was made by many different hands. It started it even to look like the architectural style Oscar Niemeyer, the Brazilian architecture engineered the city of Brasilia from the blueprint to execution. The city looks like it was made by a computer, even though it's beautiful.

2. Hygge was meant to be the blueprint for all of Witness, but then something happened and it changed the way it had to relate to the rest of Witness. What happened?

A bit on the history of this fracture was basically that this man Denton was too powerful. He was the overseer of everything and he was a very controlling man. He wanted to structure every aspect of society and he was imagining this for absolutely the entirety of Witness. Every single person would have allocated resources for them defined by this state. It would be some sort of a incredibly efficient communism, but the fracture came, of course there were events that I could name, but here's the basic motivation. The way that Denton saw the world was different from the way people saw the world. So there's resources that he allocated and even the form to control his allocation, created a hyper bureaucratic society in which there was very little flexibility. And even now after the events we're going to discuss, you can still say that Hygge follows a philosophy of no suffering, much more strongly than yes to glory.

Its always about controlling pain and controlling pain and controlling, controlling, controlling. So for one kind of personality, this society is wonderful, but for a lot of personalities, it is not. People feel trapped. People feel like they can't evolve. People feel like whatever their parents were doing is exactly what they're going to do because this society has no movement. Though different groups started to break away from where would become Hygge, for different reasons some people for religious reasons, because they wanted to be free to have their spiritual relationship without being mediated by the state. Or the people were more economic reasons, they felt like they had this ambition and this entrepreneurship, and this was not a place for that. And they literally broke away from what was central nervous system of Witness. And they created the idea of separate Distrikts. This is the foundational myth of Witness: how the floating city then became many.

3. What is the social contract of Hygge? What is the economic system?

In the beginning, there was the UN the United nations and its concept of floating city. Denton



is a man of this culture. He's a kind of senior, very far to bureaucrat similar to those enlightened, by the way, the well-meaning person, when characterizing the economy that he try to build allows us to build a sort of optimistic version of advanced social democratic economy in Witness, which is an interesting topic because it is a model that is actually out there. It is capitalistic, but not too much. And many people aspire to it. It has generated some very successful real world countries notably in the north of Europe when imagining the economy of Hygge, notice that Hygge is a Danish word.

So it, there is also even this kind of, not a idea of uniformity, of social quality. Don't stand out too much, but also be very compact and cohesive in the society. The economy of Hygge, as we imagine is the economy that targets explicitly the Gini coefficient, the Gini coefficient is one of the economic measures of inequality. We hear about it, but not so much because our real world economies don't really do that. We do monitor the Gini coefficient, but we don't have a policy in terms of that. We have a general idea that inequality is bad, but really what is happening is we maximize GDP growth.

That's what we do, but not in Hygge. Hyggen Way, actually try to keep Gini coefficient down. How they do it so well, that's kind of an interesting question because of course in the real world, we also would like to keep the Gini coefficients down. In Hygge, they decided to make a sort of choice, which is enhanced social mobility opportunities for the lower and middle class. Why? Because that motivates to productivity. You work hard, you get ahead, but that stops when you are rich. The rich are prevented from becoming too rich. There's a very, very strongly progressive taxation system, very strong anti Monopoly policies built in terms of a presence of the state of a Distrikt of Hygge in the economy. How do you prevent energy utilities of total to become a giant? You make another total.

4. Is there nationalization of sectors or does the state compete with the rest of the economic actors?

It's more, the second nationalization is a bit of a Hail Mary economic policy pass in the economy. You don't need that because you don't allow a private for profit company to control your energy, your water, your roads. This is like really bad. If you've done it, you've done it bad. So instead in Hygge, they kind of either centralize the infrastructure provision to the public powers, or they have a kind of mixed economy with some private actors and some public actors, the public actors keep the prices down. Imagine, for example, a war in which be a mobile phone company that provides mobile service at low price. And that will prevent the others companies to price too high.

5. So this model is one which puts the state actor within the frame of competition policy, not outside the frame of competition policy?

Yes. Again, this is only a facet of the economic make in Hygge. And this is by the way, why this experiment is so fascinating- because you no longer study policies in a vacuum. What



does competition policy look like? If you try to build the credible Hygge, the answer is always, well, it depends what you're doing in other sectors of economic policy, right? Everything depends on your objectives. So in this case, are you doing competition policy? Yes. Why are you doing competition policies? To keep prices low. Make sense? Why do you want to keep prices low? Well, because you want to give a spring vote to the lower classes. You want to prevent the suffering.

6. What about the politics of Hygge?

There was a moment in which Hygge was everything that was, Hygge was Witness. Then there was this moment where the Distrikt started to break out. And that was a moment of turmoil, especially because of the figure of Denton, who basically everybody who was opposed to Denton decided to move away. He became de facto emperor of this Distrikts, even if there was no system to turn him to that. As all opposite left, he was the sole commander of the whole thing. But that was a problem because he became a little obsessed about external policy. He wanted to stop those Distrikts from existing, with all of his powers, with all of his resource allocation that he could do. And thus, Hygge became incredibly inefficient in so many things for a while. And even this AI, the state machine that governs so many things around Witness, it creates this harmony in Witness was nagging everyone to force Denton into early retirement for years, because that was the right political movement to do.

As he had no opposition, there was nobody to actually make that happen. This lasted four years and it sort of created a bad rap for Hygge among the other Distrikts. And that also created a pendulum movement. As soon as Denton was removed from power, there was this huge movement of people trying to turn Hygge into something else to trying to change this political aspect around hygge. And this is where the Distrikt got its name. It was a branding choice for people to know that they were not having those aggressive movements anymore. Right now Hygge still has a lot of this past of hyper bureaucracy. So it is highly bureaucratic, still.

There's a movement to little by little, very comfortably go back to a more reasonable amount of bureaucrats per capita. There's also a new movement of people who see that this whole set of policies that indeed do what they're trying to do very well. They completely negate another part of the human endeavor search for the new, the search for betterment, the search for improvement. There's very little innovation in Hygge, unless the innovation follows very particular set of rules set by the bureaucrats. So there's this new movement and maybe Hygge at some point will become a place of innovation. The energy is there.

7. Is Hygge an attempt to find out a new path towards realising a model that was supposed to be good, but didn't work as intended?

No, I think we are being agnostic here. So what's happening is say Hygge more or less symbolizes the Nordic model of homogenous societies, maybe slightly paternalistic, but not less free than some of the others. In fact, I would argue even more free because inequality,



there is freedom for a lot of people, freedom from want freedom from suffering and whatnot. Remember Witnesses, a participatory project. We were over stubs that we are allowing even encouraging people to come and help build it with us. So Hygge could be a place where people that want to try in their head, the Nordic model they can do. So what would the fully developed even utopian idea of an Nordic model look like? What would its central banking look like? For example, and in the central banking section, I amused myself imagining Hygge has embraced modern monetary theory. These guys don't believe there such thing as a budget or a state that is kind of impossible.

You create your own currency of Hygge is fully sovereign from a monetary point of view, the Hygge central bankers. They think in terms of we create money into existence, we tax money out of existence to avoid inflation, but we don't care about the budget. It meshes very well with this idea of equality, because if you embrace modern monetary theory, that is a powerful idea to fight this notion of authority. Does it work? Does it not work? Do people like it, people are encouraged in Witness to ask themselves, what would it be like to live under this economic system, which is so different from ours. Hygge is one, one of the most similar in fact to systems we do live in, especially in Europe. We hope that over time, people that like the Nordic model, they will develop it. And people that don't like that they will develop other Distrikts that maybe are more libertarian or more anarchist or whatever.

Let me also point to the fact, little meta now to you asked the question that we created this project for this kind of question. We're not trying to present the answers with our project. We're trying to make you ask the right questions. We are sustaining this doubt. And maybe for you, Hygge will be the example of modernist society that works or the opposite. And those two visions. We are accepting all of them. Maybe you will think tonight. Oh, but what if somebody, it tries to produce some product that the state doesn't what happens. And our project is ready to accept you to write this story. So this is a project about really complicated questions. We're giving you some imagination, bricks for you to play with, but we do not claim to have the solution for society. We're trying to get the people who are going to make those solutions and put them all in the same room.

8. If we will be there on the street of Hygge in this very moment- what would it feel/look like like?

You have been invited to an official gallery opening. You walk to the particular place that you go in and it's a building that's clearly new, trying to look old. You cans see that it was manufactured to look so, but it still has its charm. You believe there's something like Italy there, maybe south of Italy, even though you know it's fake.

You are about to enter the space and you can see the pieces of art insight and they are geometrical ever changing fractal. There's something about them that even makes you think of like depictions of Islamic art, where they do not depict any figure particular, but they find the patterns that will lead you to this divinity.

But you hear a noise just outside the door. Some people started to gather, they're not informal clothes that you use, they are sort of ragged and they're screaming something clearly presenting some sort of opposition, some sort of counter movement to exactly what's



happening inside the gallery. And now you have a choice. Do you enter and you interact with those geometries and those patterns and this orderly beauty, or do you stay outside and see the drama happening? This is Hygge.











Libria: Liberty City

Libria, a libertarian Distrikt, is the current form of the community that began life as Distrikt 2.

Libria, a libertarian Distrikt, is the current form of the community that began life as Distrikt 2. Spurred by constant threats on the part of J.C. Denton and his allies, the initial D2 Steering Committee collapsed, and the resultant reprisals were a violent push towards ensuring maximum personal freedom. Libria prides itself on being as close as humanly possible to the ideals of a minarchist state, with the Watchmen in charge of enforcing property laws, protecting citizens against aggression, theft, breach of contract and fraud, and everything else left to markets.

Political History

Distrikt 2 arose out of the events collectively known as the *Zero-day Fracture* (0 0D - 7 0D). Overwhelming marginalization from J.C. Denton and Project Viking's original policies created mass community unrest, which spilled over into the First and Second March of the Voiceless (-3 0D to 0.3 0D). The State Machine apparently reached a calculation failure in its attempts to impose a framework that would allow everyone to operate under one government, and sanctioned the first divorce, or a *fracture* in populations. In 0.5 0D, vacant infrastructure (set aside for later growth) was partitioned into Distrikt 2. A 12-person Committee of community leaders was legitimized as a way of handling the infrastructure gift from the State Machine and governance thereafter.

However, the Committee, which was supposed to install a democratic process, soon fell to vicious infighting between Megan Rilke and Karunasalam Balraj, who saw themselves as the first among equals, and the rest. Aethnographers now suspect that Denton's Peacekeepers assisted their polarisation by conducting low-grade mimetic warfare on the fledgeling Distrikt; the idea was that once it collapsed, the State Machine could mark it down as a failure and Denton's government could re-absorb the remains. Distrikt 2 was meant to serve as an example to potential dissent.

It did serve as an example, but not in the way Denton expected. Denton's Peacekeepers acted too early and began threatening martial law to counter the rioting and localized violence. They were met by the overwhelming force of the Third March of the Voiceless, which was less of a march and more of 'a crowd-sourced defense of the Distrikt 2 border; the greatest self-organizing army Witness has ever seen', in the words of Andromache Kosovitch in The New Histories of our Times.

The Marchers, in a rather homebrew friend-or-foe identification system, began to carry around flags and banners, and adopt various battle-shouts; what became popular was the motif of a broken chain and a cry of Liberia, Libria! Thus Distrikt 2 earned its name.



*"Independence, self-reliance, and the willingness to take risks and survive by own own sweat and labor, the ability to speak back against a majority or slave-drivers with guns and policy documents, the ability to work with who we want, when we want - these are the values on which our society must rest. Rule by committee is nothing but a polite name for thuggery; and we have seen that every time they come for us these are the things they take away first, so as to make us servile, subservient, mute." — Augustine S.A. Hayek, *The Road to Liberation*

Much of Libria's politics and way of life rests on its economy. Post-March, those left behind were overwhelmingly skilled labour who had been contracted to build Project Viking. They therefore possessed significant manufacturing expertise, and most began to either pool together as companies or individually contract out their skills for the ready markets in Distrikt 1 and 3, often staking out both home and work space as company assets.

Early Libria thus went through a second phase of conflict - albeit one less visible to the other Distrikts. Various Marches liked a fight began contracting out as protection; at first as part of companies, but dedicated operations such as the Voxel Dogs and the Secure Seaside began to emerge, quickly snapping up people with military experience. Fearing the emergence of mafia-style governance, most people in Libria voted to establish the Night Watchmen (abbrev. the Watchmen), a body politic empowered to handle law and order and themselves tightly bound by contracts that required the goodwill of citizens and the Watchmen tax for their daily survival.

Today, the Watchmen control most of Libria, but not all; the Voxel Dogs, the Senators, and the Seaside operated sophisticated extortion and human trafficking operations and have, to an extent, legalized themselves by setting themselves up as private security, buying up property and using their funds as venture capital.

While it would seem that Libria and the Assembly of People would be natural allies in Distrikt-level negotiations, because of the strain of anarchist and anti-statism that both embrace, both parties remain wary of each other and tend only to vote for each other's proposals when there is clear utility to both parties. Assembly visitors regularly rank Libria as their least favorite place to travel to, and culture clashes are common when bargain-hunting, ever-ready-to-negotiate Librians visit the Assembly for commerce or sightseeing.

Economy

NO GODS, NO GOVERNORS, ONLY MAN - holographic motto over the entrances to the Central Electronics Market. The closest Libria has to a motto. And alternate version, marked on the remnants of the defensive perimeter, in a now-forgotten language, is τίνα θεόν, τίν ἤρωα, τίνα δ' ἄνδρα κελαδήσομεν. Supposedly it reads "What god, what hero and what man will we celebrate?"



Much of Libria's politics and way of life revolve around markets. Libria is largely an export-oriented economy that sells clothing, electronics, software and plastics all over Witness, although exact estimates of the economy are hard to derive - almost all relevant data is in private hands, and it would be a nightmare to even acquire it. Trade and negotiation permeate almost all levels of interaction, and the adage that "if you're looking to buy, I'm looking to sell" applies, especially in the Central Electronic Market. Supply and demand determines much of who stays and who goes, and there is no enforcement of things such as copyrights or patents - if it can be reverse-engineered, it certainly will be.

Corporations - of which there are uncounted thousands, whether sole operations or looming behemoths - operate primarily as raw materials havervesters, producers of goods, or the providers of services (such as traders, escorts, market-analysis companies, or software developers). Despite the Night Watchmen's prevalence, many also function as pirates or mercenaries, being paid primarily to extort others, steal, or destroy assets. Market manipulation is possible at large scales, and several Distrikt-wide Ponzi schemes and fake banks have emerged and fallen.

Because of its high-risk nature, the Night Watchmen have (over time) introduced the Griefing Charter, which has sufficiently broad language to allow them to act on new types of acts of repeated malicious intent that can be proven to infringe on someone's profits at no material benefit to the attacker.

Economic policy

- "As order exponentially increases, time exponentially speeds up."
- Attributed to Ray Kurzweil, a popular pre-Sundering philosopher

Libria's early-days leadership instituted a system of minimal government. Most infrastructures are in private hands, handled through concession contracts. The main sources of fiscal revenue for the Distrikt are the proceedings for the concessions themselves and a value added tax on consumption. A single-rate tax on income also exists, but it is mainly used as a source of incentives: whatever the Distrikt's government wants more of (for example R&D investments, or energy efficiency increasing interventions) is made over 100% deductible. Unsurprisingly, the contribution of the income tax to Libria's fiscal revenue is negligible.

The prevalence of skilled workers and entrepreneurial types in zero-day Libria brought about both prosperity and relative economic equality. The first recorded measure of its <u>Gini</u> <u>coefficient</u> (03 OD) was 0.25, on par with the most egalitarian pre-Sundering national economies since records were kept. This engendered fast growth, which, in turn, accelerated the process of concentration of wealth and power to the most skilled (or luckiest, as scholars in the Assembly are quick to add) individuals and businesses. This phenomenon was



foreseeable and foreseen, but the ideology prevalent in Libria makes redistributive policies politically difficult; and the Distrikt bureaucracy does not have real capacity for it, anyway.

By 10 OD Libria's Gini coefficient had grown to 0.34. Under Hayek's direction, the Watchmen's policy office launched a new strategy, Fair and Free Deal. Its main idea was to focus on "growing the pie, rather than slicing it thin". Low-income individuals would improve their condition because material wealth would grow fast enough to outrun the pace of concentration.

Pragmatically, the strategy also promotes equality of opportunities, with an extensive program of grants to higher education and the launch of venture capital funds for micro- and nano-businesses. While both the higher education establishments and the VC funds are in private hands, the Librian economic élites agreed to self-regulate in providing those grants under fairly moderate conditions: so, for example, low income students sponsored by Skyward are allowed to choose a different employer after graduation and a maximum of two years of employment at Skyward itself.

The Fair and Free Deal also subsidizes the relocation of low-income individuals to other Distrikts, and puts in place a policy of "talent attraction" for Scholae graduates, aethnographers and, above all, high net-worth individuals. The evolution over time of economic inequality in Libria is keenly studied by scholars, both in Witness and globally.

Currency

Several currencies exist, each backed by the company that floats it. Tiburón Metal runs the Shark, a card-and-digital currency tradeable at any Tiburón branch for its worth in iron (one of the most precious materials in Witness). Tiburón's exploration arm, SONAR, runs regular expeditions to the ocean around Witness, often reclaiming metal from the detritus of cities underwater; the value of Sharks thus fluctuates around SONAR expeditions and speculation around them.

Sunflower EX handles SolarCoin, an asset tradeable for units of energy sold in the form of direct-to-POS or Sunflower Batteries. Waveform runs WaveCoin, backed by energy generated from the sea as well as profits from Waveform's significant assets (one of which includes a 'private security company' called the Senators). These three form the most significant currencies: other local ones exist. The State Machine generally accepts or handles conversion to and from most currencies in Libria.

Artificial Intelligence

Outside of https://edgeryders.eu/t/hygge-the-first-distrikt/15239/4, Libria contains the most compute resources dedicated to AI. Some aethnographers specializing in computational technologies believe that Libria actually has *more*, but the space is so fragmented that it is



difficult to understand. Garden-variety AI are typically those that use a one-size-fits-all SaaS model - such as navigation tools, dating support services or various self-help and 'social' apps that push their users towards local events and opportunities.

More sophisticated forms include those used to aid scientific discovery, reverse engineering, and run news aggregation services. Some people reportedly have 'Perfect Copies' - Al agents that are capable of mimicking them and their preferences down to a T, and thus can converse and negotiate on their behalf. This has an outsize impact in Libria, as one person can then appear in multiple places and do several hundred tasks at once.

The Night Watchmen in particular are cautious about AI, as many of Libria's fundamental beliefs and emergent systems revolve around meatspace personhood - and these systems can be exploited when a person is able to scale exponentially. Al proponents (often a group called *Agent Provocateur*) argue that this scaling impact is no different from the normal economic impact of a person rising through the value chain. But rights groups have protested the software and wetware labs that make such AI; and there is much debate in the halls of every Distrikt about whether this should be regulated before it grows beyond everyone's control.

Topography and Environment

The best way to describe Libria would be as "the urban sprawl". Constrained by the borders of the sea, as well as the Assembly and the Convenant, the citizens of Libria built upwards, layering density to an incredible degree. The lack of centralized control makes it both serendipitous and incredibly chaotic to navigate for newcomers: mazes of walkways criss-cross above roads, connecting buildings where present or former business interests are aligned. Infrastructure is made (and sometimes broken) by private interests either banding together or splitting apart. If one looks closely, graffitos and signage mirrors the aesthetics of the clubs, corporates or other notable communities (sometimes called gangs, but sometimes more accurately called collectives, though Librians are averse to that term) controlling certain areas.

Arguably the most infamous areas are Rue Libertas, the Red Light and entertainment district run by the Seaside Senators, and Club Hedon, operated by a coalition consisting of Tiburón, the Voxel Dogs, and Sunflower EX. The saying is that "if it can be sold, it will be sold".

But these are now more tourist honeypots than mainstays of actual Libria culture. Of more interest are the dizzying Sunflower Heights, where reportedly many of the who's who of the city have a private apartment, and the gliders and helicopters that fly between Sunflower Heights to specific high-rises and pseudo-skyscrapers within the inner rings of the city.

Skyward, the manufacturers of these aircraft and suppliers of drone imagery, are making a fat profit. At the docks, seawards, sits their ostentatious statue of a winged woman: it has



become one of the most iconic public monuments of its time. From Skyward's heavily guarded corporate fortress at the docks, flights of aircraft stream out over the ocean, working in tandem with ships from Tiburón, Lachland and Wathuradevi to spot profitable salvage from the ruins of the Sundered world.

Elsewhere, the Central Electronics Market - a sprawling, thriving collection of streets where small vendors do just about everything under the sun. The lives of the rich and the powerful, with their penthouses, private pools and security, is a far cry from life down on these streets, where the ordinary hustle goes on shoulder-to-shoulder.

Just down from the CEM is Voxel Stadium, which has long since evolved from a patch of turf where the Voxel Dogs played cricket. Now it's an enormous sporting arena, the largest of its kind on Witness, and cricket is both entertainment and a religion that moves millions of dollars around throughout the year: from the crowds, to the cricketers, to their wetware engineers, masseuses, security, therapists and other staff, to merchandisers, to the hedge funds betting big on wins, to the Voxel Dogs and their sub-gangs that provide the venue and the security for it.

Culture and Contemporary Life

Many critics, in the beginning, predicted that Libria would become a desolate corporate wasteland, devoid of art and culture and thought. They're wrong about the desolate part. While large corporations exert enormous influence, musicians, artists and sports people have thrived in Libria. Subcultures thrive, and bereft of social contracts outside that imposed by the Night Watchmen, the region is possibly the most diverse of all of Witness.

The aethonographer Calvin Maliek, however, has noted that much of Librian life follows a power-law distribution: 1% of people take home 99% of the fame and fortune, and outliers are disproportionately rewarded. His essay on the subject (titled: *The Eternal Dream*) critiques the role of markets and the risk inherent in the lives of Librians. In a counter, Augustine S.A. Hayek, Inspector General of the Night Watchmen (known in Librian law-enforcement circles as the *Shadow Queen*), wrote *The Eternal Promise*, pointing out the importance of choice, the role of markets in preventing hegemonies, and the acceptance of risk in life.

Advertisements for all sorts of entertainment abound throughout Libria, and celebrities are household names. Cricket is both one of the largest money makers and practically a religion; every corporation worth its salt sponsors a cricket team for the advertising value, and a thriving industry of trainers, marketers and promoters all make a buck off this system. Almost as popular are public art installations and institutes funded by private interests - often with tacit marketing value or as a public demonstration of the wealth of the funder. The Tiburón Institute of Music, the Wathuradevi Philarmonic, Club Hedon, and the graffiti artists known as CABAL are examples of cultural mainstays created by private wealth.



Transport

Much of Libria's transport is on foot, or via private vehicles. Because of the fragmented nature of this part of its economy, there are very few large corporations producing vehicles end to end; instead, consumers usually pay bodyshops to put together the parts lists of their choosing, resulting in some impressive idiosyncrasies as well as innovative, low-cost designs. After much bargaining with the Night Watchmen, the State Machine has created a sub-system called Virgil that explicitly serves as a type of navigation system to be installed in vehicles; however, many are suspicious of this, arguing against both the State Machine and what they see as the steadily increasing power of the Night Watchmen. Needless to say, private mapping and navigation services are a thriving enterprise in Libria, as rapid change often changes landmarks and paths; Skyward has a near-monopoly on this particular domain.

Notable People

Ivan Tiburón. Libria's most famous hypercapitalist inventor combines the public image of an eternally delighted mad scientist and a ruthlessly Machiavellian sense for business and politics. Tiburón and his children - Eskar, Damask and Rafielle - dominate much of the social conversation of Libria on a year-round cycle carefully determined by an extensive PR team. Usually, Ivan is showing off a prototype machine of some sort, or a new find salvaged from Old New York or Delhi; or Eskar is causing scandal for his running around with models and partygoers from Club Hedon; Damask has produced yet another mind-blowing public AR spectacle, or Rafielle, who leads Tiburón's wetware and black ops, is at the forefront of a clash with rivals.

Augustine S.A. Hayek. Libria's head of the Night Watchmen. Revered for her role in the Third March of the Voiceless, Hayek rules the streets with equal parts vigilance and philosophy. Her particular role makes her the closest Libria has to a spokesperson for its value structure, and aethnographers have learned not to underestimate her intellectual calibre, spy network or the regard that most Librians hold for her.

DJeremiah. Libria's #1 celebrity DJ (and now a venture capitalist) has a famously checkered past: he played for CTRL + ALT + REVOLUTION, the band that founded https://edgeryders.eu/t/the-assembly-of-people/15199/2. His record label, the Rising Sun, is one of the most sought-after deals by up-and-coming street musicians.

Megan Rilke and **Karunasalam Balraj**. Less a popular combination and more as a cautionary tale in power. Some who were at the Third March celebrate them and the Marches by lighting paper lanterns on the 14th of April. This practice quickly caught on; but their names have more or less fallen into memory; only the lanterns remain.



Footnotes

Libria could be cyberpunk: it certainly borrows heavily from the tropes of the genre, including the unregulated economies, non-state actors taking on functions of the state, and the general 'the street finds its own uses for things' vibe of both William Gibson's classical Neuromancer and the more systematic explorations of Mike and Lisa Pondsmith's Cyberpunk Red.

But instead of the megacorps that rule the Pondsmith's vision, <u>mid-sized companies and</u> <u>collectives account for the largest share of Libria's economic output</u>, paired with the kind of rapid-fire, lateral innovation <u>brought about in chi-fi</u>, where rampant counterfeiting and IP theft combine with supply. All of this is set within a model inspired by the MMORPG <u>Eve Online</u>, where hundreds of thousands of players are thrown into space and given the freedom to do anything they wish.

As a result, entirely private interests clash in fierce economic competition, manufacturing, trading, political intrigue and open warfare. It's worth reading Empires of Eve, Andrew Groen's narrative history of the entirely player-generated politics, warfare, and culture; and following it up with this <a href="paper by Taylor et al, titled "Alienated Playbour: Relations of Production in Eve Online", to understand what kind of social contracts evolve in a truly libertarian space.

The result is a place where this kind of statement - "...only the biggest and most ambitious of these companies even bother with a website; most of them have little more than a vendor page on AliExpress. Some of these companies buy their drivers — the actual speakers — from the same factories that provide Sennheiser and Beats with theirs. . . . the factories that make the drivers don't care who they sell to; they maintain a certain level of quality because their clients depend on that. And once you've sourced the parts, it's not expensive at all to put them together. "If you have a van and a bottle of glue," Klasco says, "you can be in the business."

... applies to more than just audio gear.



Notable Characters

The Assembly

Flo Royal

Arguably the most famous citizen of Assembly, who, after the band imploded, spent significant amounts of time aiding fledgling collectives and today is the closest that The Assembly will admit to having a single spokesperson. Under her leadership, a new CTRL + ALT + REVOLUTION put out CHRONICLES OF STRUGGLE and CHOP WOOD, CARRY WATER, two albums that serve as documentaries on the process of building the Assembly. It should be noted that her work has lost most of its symphonic metal elements for gentler trance work. She and her CTRL + ALT + Townhalls remain an institution unto themselves.

Donovan Gordillo

As revered as Flo Royal and often good-naturedly called *Soilfather*, for his work in bringing the Assembly to agricultural independence and for his fierce campaigning against the spread of foreign currency in the Assembly. Gordillo is widely considered to be the top authority on antifragile collective-building and often borders on being a Revolutionist, despite never taking the position. Nevertheless, it's a common saying that when the revolution comes, Gordillo will be there at the back, feeding the rebels.

Tyson Jayawardana

Tyson Jayawardana is seen as a savant who continues the work of Donovan Gordillo for the greater good. Generally has little to say other than on transport - Jayawardana often works alongside his Guild

Nikita Bourlag

Nikita Bourlag is seen as a savant who continues the work of Donovan Gordillo for the greater good, and generally has little to say other than on food. Bourlag is seen more as an outsider with a gift that it would be foolish to ignore.

Chen Da Jiang

Another popular citizen, poet and archivist Chen Da Jiang, whose interDistrikt



photography, *Diaries of Water* (a nuanced pseudo-epic on the founding of the Assembly, told from the perspective of the ocean, and sometimes running counter to what was popularized by CTRL + ALT + REVOLUTION) and *Humans of Witness* (a long-running interview project) have made them a darling of both people and aethnographers.

Anagram Vho

The longest-serving Revolutionist, and the most faithful adherent of the system, is **Anagram Vho**, who after CTRL + ALT + REVOLUTION's dissolution took on the task of 'balancing' religious influences from the Covenant. Sometimes accused of religious persecution, Rose views religion as an unwelcome hegemony and a shadow power structure that goes against the ideals of the Assembly.

AvantGrid

Bios under development

Octavia Dirk Megan Rilke Karunasalam Balraj Alban Leo

The Covenant

Alban Leo *Monk*

Auctotitatis

The Auctoritatis is an institution unto themselves. The opulence of their surroundings, the tight security, the almost mythical taciturnity of the upper levels of the Officium, and the moral authority combine to make the leader of the Covenant a tourist attraction and an extremely powerful religious figure throughout Witness.



Cottica

Cottica, the anonymous poet-economist who has revealed so much about the inner workings of the Covenant. Originally hunted by Covenant agents, she was extracted and offered asylum in Hygge; she has since gone on to study both the Assembly and Avantgrid (she has a noted dislike for Libria) and has been accorded honorary citizen status in both those domains. Very few people know who she actually is, or can recognize her; all that is seen are respectful snippets like the one from Anagram Dias, which appeared in *New Horizons* serial 641.

Dandelion Republic

Tomas Dieters

Tomas Dieters: primary compiler of the social contract, is one of the highest authorities recognized in the DR; the Dieters Cultural Seed Fund is named in his honor. Dieters also enjoys a rare status as a guest policymaker in neighboring Hygge, out of respect for his skills.

R.Cahn

R. Cahn: Governor-Servant of the Dandelion Bank has been a steady pioneer and refiner of the DR's system of exchange. While the State Machine maintains the in-Distrikt exchange and the price of goods, Cahn oversees the infrastructure (both physical and otherwise) in implementing and maintaining an equal quality of service for all.

Hygge

under development

Libria

Ivan Tiburón

Libria's most famous hypercapitalist inventor combines the public image of an eternally delighted mad scientist and a ruthlessly Machiavellian sense for business and politics. Tiburón and his children - Eskar, Damask and Rafielle - dominate much of the social



conversation of Libria on a year-round cycle carefully determined by an extensive PR team. Usually, Ivan is showing off a prototype machine of some sort, or a new find salvaged from Old New York or Delhi; or Eskar is causing scandal for his running around with models and partygoers from Club Hedon; Damask has produced yet another mind-blowing public AR spectacle, or Rafielle, who leads Tiburón's wetware and black ops, is at the forefront of a clash with rivals.

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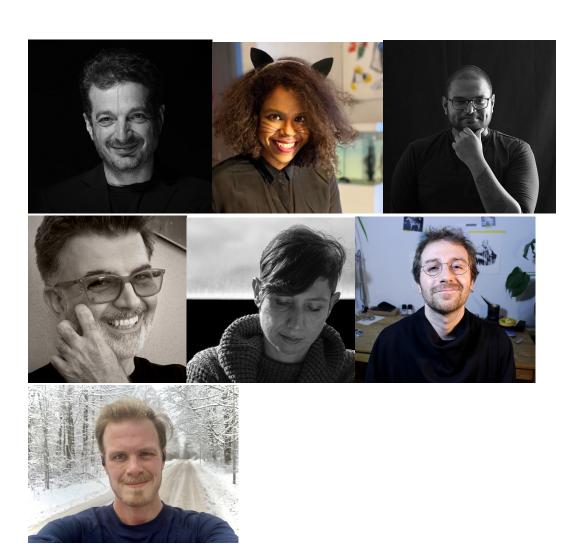
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Acknowledgements Leadership

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Researcher for Data, Algorithms and Policy team at LIRNEasia, a think tank working across the Global South; Co-founder and editor of Watchdog Sri Lanka, a fact-checker.

For the rest of the time, Yudhanjaya argues with the cat, tinkers with OSUN, a series of Al+human experiments in creativity, builds imaginary floating cities

Jean Russell

Contributors

Everyone in Witness Category

Featured Contributors

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Hugi Ásgeirsson

Creative producer, researcher, developer, and community builder. I create and evolve tools for participatory ways of working together and employ those methods in my own projects. Most of my life and work have been in co-created and participatory settings. In fact, I often joke that I have no idea how to do anything else. By this point I have been a central node in participatory art projects and festivals, participatory politics, co-created placemaking, opensource software development, open networked companies, and even dabbled with a co-created religion. I'm a co-director of Edgeryders and co-founder of Blivande. Say hi to me here!

Frank Dieters

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Author and networks specialists. Works as Enspiral's Catalyst - a self-managed servant leader role that aims to turn the network's invisible resources into something visible and available for all. Creator and manager of Jojojo, a personality exploration cardgame that uses weird and profound questions to accelerate connections between people. Proud owner of a sci-fi Youtube channel

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Marco Lo Curzio

He graduated in Architecture at University of Reggio Calabria, Italy and specialized in Interface Design at the Domus Academy in Milan.

In 1999 he found Sciara srl, a company dedicated to promoting cultural actions and media design. Since 2011, he directs the hub of activity of Sciara as a film and television production company, as creative producer and project manager.

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