The Principles of Solarpunk

Many years ago, the dark prophecy/warning of a cyberpunk future entered the public conciousness. Propelled by the increasing trend towards grittiness in Sci Fi (Illustrated in other popular works such as Star Wars, itself a shift away from the clean aluminum rockets of past sci-fi works) the works have embedded themselves into the public eye. Works such as Blade Runner and Neuromancer are staples. And yet, our culture has, in a way, collectively misintepreted these books, as new interpretations of those works (Such as the much-hyped Cyperpunk 2077) now highlight Cyberpunk not as a warning, but something *cool* that is strived for. It is time for a new movement and a new genre, a new depiction of the future, espiecally as our reality begins to veer off towards this dark prophecies. Solarpunk is that movement.

Why Solarpunk Exists

Much of the sci-fi works or futuristic prophecies in our mainstream, even the aspiritional ones, are both so far off as to not cause any excitement/movement towards them. In addition, they are often devoid of plants, DIY, architecure, and aesthetics, presenting instead an utterly in-human living environment. (As much as Star Trek TNG presents a utopian aspiration, living on the Enterprise for longer than a week would probably be painful to the average human). This is indicitave of a larger trend, that **THE FUTURE** is austere, white/sleek, and clean. Solarpunk exists to combat these tendencies of cleanliness and to provide a realistic (if optimistic) vision of the future we can all work towards, be it by writing open-source software, building your own furniture and technology rather than buying them, growing food and vegetables, or by something as simple as planting native plants in the garden. It is a vision of and a movement towards a future where giant skyscrapers don't blot out the sun hulkingly, but rather are vertical gardens, lush with life, with beautiful intricate glass and designs, a world where equality and justice and rationalism prevail, a world where no human is better than another due to skin color, gender, or sexual orientation. It is optimistic- but it is also acheivable.

The Social Components of Solarpunk

The world we think of when we think of the future in a solarpunk context- the world of soaring vertical gardens and clean air and food- is not merely a technological and design challenge. It is also a social one. *Note to future contributors, I am not the most qualified in this field, please fix any mistakes i have made.* Today, social injustices and divides are, in many places, a fact of life. In America, cops can shoot black men or women while they are sleeping for as little reason as "*We felt we were threatened*". In many, even developed, nations, there exist not only systemic racism and sexism, but also a deep, pervasive culural attitude of male/straight supremacy. And even aside from these social justice struggles, a deeper, more fundumental conflict is raging- that between

the rest of society, and the 1%. Jeff Bezos, the richest man in the world, owns five houses and three yachts, and *still* pays his workers as close to minimum wage as he can and works them till one of them drops of a heart attack on the warehouse floor. The top 1% own 44% of the worlds' wealth, both on paper- and materially. The 10 richest billionares alone own 801 *billion* dollars. 3 billion people are in sever poverty world-wide. These billionares could afford to give each and every one of them 267 dollars- an amount that, to middle-class people, doesn't sound like much, until you realize that in these under-developed regions, you can often buy a car, or even live for well over a year, on that much money. We cannot acheive that glittering utopia of equality until we acheive economic and social parity and justice, until we acheive a world where no man can be killed due to their skin tone, no woman assaulted for her past gender, and no worker can be paid minimum wages and left for dead on the warehouse floor.

The Technological Components of Solarpunk

Fixing social issues and ending income disparity is a major step forward, but we cannot acheive that step, nor the halting of climate change and environmental destruction, without the use of technology. While some other movements (Such as Anarcho-Primitivism) advocate the return of Humanity to a virtual stone age, the Solarpunk movement advocates Humanity moving towards an enlightened future, not a return to a primitive past. This movement has many major technological components, such as:

- Use of only renewable energy, no oil, coal, or natural gas.
- Turning modern computing techlnologies sustainable by making computer manufacture fair-trade and promoting computer recyling.
- Using only open-source software, which belongs to everyone, not just billionares.
- Extensive greenhouses/gardens in everyones house.
- The destruction of suburbs and movement towards green, ecologically concious cities, which are more space efficient, leaving suburban sprawl to return to nature.
- Solar roofs/ renewable energy to the masses.
- End of consumerism, or repairing broken items instead of buying something new.

Technology is a massively important tool towards a better future, free of injustice and pollution. Many 'Green Anarchists' or 'anprims' advocate a complete return of Humanity to a bygone era of primitivism. This is an idea that is shockingly popular in the green movement, however, not only is this movement impossible (Are we meant to shoot down our orbital sattelites and burn all our cars?) it is also misguided- Such a movement would lead to massive deaths. The major quality-of-life improvements over the last 200 years are entirely due to technology. Our goal is to continue the benefits of technology and an industrial society, while removing the damaging consequences- the destruction of natural habitats, the pollution of the Earth, masssive social injustice caused by

industrial capitalism, and the utter lack of biodiversity.

Design Consideration of Solarpunk

One of the major tenets of Solarpunk is ecological/heuristic design, which is, simply put, taking into account the environment, both natural and human, when building anything from designing a city, building, or park, to building a table and a birdfeeder. This can be broken down into three categories of design- That of cities/infrastructure, that of buildings, and that of DIY of the average person.

Infrastructure/Cities

Cities and infrastructure now are built around the car- one of the major causes of pollution and ecological disruption, both directly and indirectly. Highways tear through America, disrupting local environments and climates. And even where roads are small and made of dirt, the sound of cars and the smog they produce can have major consequences, causing the decimation of natural species. Planes tear their way through the sky, interrupting bird populations in addition to burning massive amounts of fuel, as well as noise pollution wherever they land. There exist solutions to these problems, many of which are implemented world-wide. Cars and large, trafficked roads can be replaced with electric bike and pedestrian-friendly paths. Electric metros can transport massive amounts of people across cities with little-to-no environmental impact, far more efficiently than even electric cars. Electric trains can solve the problem of mid-range travel, both conventional electric trains (As in Japan or Europe), or the more futuristic technology of hover-trains (Yet another victim of capitalism) or linear induction trains which are almost entirely silent and have little-to-no envirnmental impact. Cities can be comprehensively redesigned for this new infrastrucutre- rather than massive urban sprawl which leads to travel being annoying and destroys yet more natural habitat, we should instead concentrate our population in green sky-scrapers (Mentioned later) and stores. Parks should be one or two a block and should be large and use native plants exclusively. Cities can be bike/walking friendly, and in many parts of the world, they already are.

Buildings

Small buildings are worse for the environment than big ones. This may be hard to stomach, as it seems counter-intuitive, yet it is true. Small buildings, such as those built in endless rows in suburbs across America, house far too little people for their size, and take up a larger ecological blueprint for their contents. Suburbs and urban sprawl both have massive ecological footprints for their uses- the small two-story apartments and 1-story family houses, as well as the one-story stores and buisnesses, not only lead to the destruction of natural habitats and so-called ‘ecological black-holes’, but also encourage car travel and discourage more ecologically-friendly forms of mass transport.

The solution to this problem is to build large eco-friendly towers that can house *hundreds* if not thousands, while having slightly larger (or in some cases, smaller) carbon footprints. How can this be done? Skyscrapers must be transforemd into vertical gardens, with gardens not merely being taked on, but a fundamental part of the strucutre. There must be terraces of native plants at every level. This not only helps offfset the buildings carbon footprint, it also leads to a better environment for humans- Studies show that humans ar emore productive and happier the more foliage/nature surrounds them. In addition, solar panels and/or wind turbines should be erected atop (ideally, integrated with) these buildings. We can start to see this sort of construction in Singapore-

Figure 1: Alt text

or in other areas of the world. The buildings that are erected should be laden with beautiful foliage and solar panelling. The shapes of the must also be environmentally concious, avoiding casting gloomy shadow onto the streets below. This doesn't constrain buildings to a single style, in fact, building should all be unique and indicative of their architects culture and origins.

DIY

For most DIY builders, the only important design consideration in this regard is materials used. Wood should be sustainably sourced, and the designs you create should reflect this and be sturdy, and not constantly require replacement or changes. DIY is at the heart of Solarpunk, as it is not only a way for individuals to represent themselves, but also a way for individuals to build more sustainable furniture, independent of massive conglomerates and suited for their use.

How you can help

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