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Sustainable Features of Curitiba

Curitiba is a city that worked with the concept of sustainability well before it was an understood goal. Founded in 1693 by the Portuguese, its economics ran on agriculture and cattle raising. In the sixties, when there was innovation marked by sustainability, it drew many more people in and became a major industrial powerhouse. Even with this shift Curitiba is still one of the most pleasant cities to work and live in. Much of its success can be credited to Jaime Lerner, Curitiba's principle architect and previous mayor. He has ranked human beings as more important than economics while designing a city. Curitiba differs from other cities, noted by trash and recycling collection, green spaces, and the famous bus network. Some of the top urban planners come here to witness the cities' achieved wonders. Jaime Lerner believed that every city has a humanitarian role: sustainability. In order to achieve such things, plans need to be thought up, decisions need to be made, and actions must be taken quickly and assertively.

During the eighties Curitiba started a city wide service for trash and recycling collection. This was one of the world's first systems, gaining a notable environmental award from the United Nations. With the huge influx of people and the growing population, it helped Curitiba avoid becoming a mess, as many booming cities do. People separate their trash and recycling, which is collected by the "Green Team." The rubbish is then put into a plant (built almost entirely from recyclables) where papers, plastics, and cans are separated and bundled for elsewhere. Since the start of the collection, there has been enough recyclables to fill several thousand sky scrapers. This system is beneficial for the city as it keeps it much more clean and it employs many people, even those with disabilities. They even stock libraries entirely from

trashed books. In poor areas of Curitiba, where the roads are not suitable for the recycling trucks, the city holds the Green Exchange. The citizens collect and sort their own recyclables and give it to the trucks every week in exchange for food or bus tickets. In this way, the bus system is encouraged, there is no need to pay for road widening, poor areas stay clean, and agricultural surplus is not thrown away. Since its start in 1990, the Green Exchange has benefitted over 30,000 families.

The city was clean, but Lerner took another step in making the city a desirable area by adding green spaces, or parks as central gathering areas among the buildings. Sky scrapers are allowed extra height as long as they provide surrounding green space, otherwise they pay fees to Curitiba, which is used for low income housing. These green areas also serve as flood reservoirs, the concept known as “the solution of the parks.” Rather than continuing to spend millions in an attempt to redirect flood waters, Lerner used the natural hydrography to strategically place parks. By digging artificial lakes, the flood waters collect and serve as an additional beauty for the green spaces.

The bus system is Curitiba’s most famous sustainable achievement. Although many people within the city do own cars, the bus system is used daily by thousands of passengers. The integration of the bus system, according to Lerner, was the key to Curitiba’s success. He said that cars are invited, but they never want to leave, demanding more expensive infrastructure. Meanwhile, the friendly bus, who is less demanding, can also carry dozens more people, reducing carbon emissions. The idea of a bus system is also better than a subway system, mainly because it is much less expensive. Curitiba, being resourceful, improved on what it already had through a successful partnership with Volvo.

In 1992 Volvo, attracted to the educated work force, entered Curitiba and began building the bi-articulated bus for the Bus Rapid Transit system (BRT). This system has proved to work so well because it is adaptable, a quality subways lack. Through the traffic control center, street lights are altered in order to keep the busses on track with the use of bus route sensors. Also, routes can always be changed or added depending on the population demand. With the use of a colored system, people know where the bus will be taking them and at what pace they may be traveling. For example, the red busses use express lanes, stopping minimally and at specific destinations, while the grey busses link outer city subways straight to Curitiba's center city.

With the bi-articulated busses, passenger capacity has increased by hundreds, unlike any other busses of that time. The speed and efficiency of the system has also improved with the tube stations. Here, passengers pay in advance, ensuring the ongoing momentum of the busses. With this fare, passengers can switch terminals (or bus type) in order to get anywhere they need to go. It is also a sound system in the fact that bus companies are paid by kilometers traveled rather than passenger count. On average, only about ten percent of Curitiba's income is spent on transport, which is low for Brazil. Curitiba also has the lowest rates of air pollution in Brazil.

According to Lerner, any city in the world can make great changes in just two years. He understood the importance of swift, executive planning and decisions. Seeking all of the answers in order to begin a project means no project would ever exist. He demonstrated this understanding when he built a pedestrian street in seventy-two hours against the will of the marketers. However, if Lerner would have waited for the approval of the shop owners, the success of the pedestrian walk might have never been. Lerner wanted the city to exist for the people, not for cars and industry.

Personally, I believe that the things completed by Jaime Lerner are remarkable successes. He created beautiful plans that are also sustainable and beneficial to the people of Curitiba. Even more, these ideas and projects have stuck around, continuing to benefit people today. The work toward a better, more sustainable city, never dies here. There are always new ideas laid out on the table in order to keep Curitiba evolving with our imminently changing society. It is truly admirable that Jaime Lerner not only physically changed things within the city, but also instilled an attitude or vision adopted by much of the people who participate within the city. This is true success, as Curitiba will continue to adopt new projects and ideas.

Every major idea has done the city wonders. First, Curitiba's recycling is very admirable, reusing more than most places in the world. The way that the collection keeps everyone involved is smart because it is necessary to sustain such a huge operation. Plus, the city stays clean, which is a difficult thing to accomplish in such a densely packed space. Even in the poor areas where the collection physically cannot reach, people are involved. By doing a simple, yet sustainable job, citizens are rewarded. I think this Green Exchange system is clever, because it benefits individuals, the bus system, farmers, and the community as a whole. Without it, these areas would be filthy, opposing what the city stands for.

The green spaces are another way Lerner cleverly benefits the community. These spaces are aesthetically pleasing. People like to be in nature, whether or not they are aware of it. Adding them to a city can be calming among the hustle of the streets. Further, using these green spaces as flood reservoirs was an excellent idea. Lerner placed these parks along natural waterways so that they could collect flood water, protecting property within Curitiba. I have personally never heard of this flood mitigating strategy. I think the dual purpose of these green spaces was an amazing idea, which could brighten up any city.

Possibly the most remarkable of all is Curitiba's bus system. It is not only the system of busses, but also the layout of the city that has made it such a success. The routes are simple and easily understood by anyone using them. The designs of the busses are good for many passengers and swift transportation. All of the details that go into it are what make the bus network truly remarkable. For example, the extra wide doors allow for more traffic at stops, decreasing idling time. The fact that the city is not built for cars seems to be the simple solution. If you build not for the unsustainable purpose of cars, they simply will not be used. It is a simple concept, yet very effective and beneficial. If it was a carless city, with streets made solely for busses, the network would probably grow to be remarkable.

I think that everything Jaime Lerner did was amazing, and I would love to see more cities, even countries, begin to adopt his ideas or even his will. Lerner said that many cities excuse themselves from their sustainable responsibility because they claim to be not financially ready. However, nobody will ever be ready, financially or mentally. Just doing what needs to be done is key. Like Lerner said, if one waits for all of the answers to begin, there will be no beginning. It is amazing to me what a bright example Lerner and the city of Curitiba has set through all of its innovative aspects. I am actually surprised that during the major development of Brazil no other cities followed in Curitiba's footsteps. Even Rio de Janeiro, in 2017, is still swimming in their own poop. Basically, by building on ideas revolving around human potentials, amazing results will come. This is exactly what Lerner did.