



Question 4: Outline a current environmental, political, or social issue that requires redesign. Explain how you will solve this issue over the duration of your future design career. Underline the tools and approaches you will use and discuss how and why.

2263 Words



Ba Product and furniture Design

SOPHIE TAYLOR

2000324

Julia Lockheart

This essay is a prime example of the problems our world is facing with the current environmental issues. It outlines the main factors that contribute to the rise in emissions such as transportation, material, marine littering, and disposal of products. Each of which we as a society have control over, which is why this essay also provides insight to what we can do to change our behaviour to enable us to live a clean and more sustainable lifestyle. It will allow you to assess what you could do in your life to contribute to a greener environment. It also gives an insight to how products that are up and coming could be altered to change the perception of design, and instead of focusing on the aesthetic of a product we should start using and manufacturing materials that are sustainable and clean. It also outlines the behavioural issues in society today and what are the necessary changes in order for people to make a difference to the environment. For example, buyer disposal issues, transport decisions and energy services.

The environment can be known as “the air, water and land in or on which people, animals, plant live.” (Cambridge Dictionary, 2021) this is the generic description of what the environment is, however it is the core to the human survival, as well as the other species living on this planet. It can be argued that we as humans are the main contribution and destruction of the environment, as we are the species that are introducing foreign materials and emissions to our own environment. This being beneficial to us however being detrimental to the wellbeing of the environment. In addition, therefore we must make conscious decisions when designing and manufacturing as every new product made contributes to the destruction of the environment, which means other species such as plants and animals are paying the price for our development. It can be said we are starting to see a depletion in the environment around us as climate change and sea level changes are suggesting a shorter life span for humanity itself. Therefore, the environment is so important as it is the only way species that depend on it survive. As we are becoming a more futuristic world, the development of new technology has enabled us to introduce environmentally conscious designs to the environment today. For example, for example we have moved from petrol to Electric cars, according to the European Parliament “Passenger cars are a major polluter, accounting for 60.7% of total CO₂ emissions from road transport in Europe.” (European Parliament, 2019) This being a significant percentage considering this is just Europe’s contribution, suggesting that the worldwide statistics will be a significantly bigger percentage. “The emissions produced by passenger cars have been steadily rising over the past two decades, increasing from 2.2 billion metric tons in 2000 to a peak of 3.2 billion metric tons.” (Ian Tiseo, 2021) This is proving that we need to become more aware of our contribution, switching to electrical cars allows us to see a rapid decrease in the contribution we have to Carbon emissions. On the other hand, although electrical vehicles produce zero carbon emissions the actual manufacture of the vehicle contributes more to the carbon emission in comparison to a petrol vehicle “Manufacturing a mid-sized EV with an 84-mile range results in about 15 percent more emissions than manufacturing an equivalent gasoline vehicle. For larger, longer-range EVs that travel more than 250 miles per charge, the manufacturing emissions can be as much as 68 percent higher.” (James Alcock, 2020) It is hard to weigh up the positives of switching to a full electric vehicle as although whilst driving the vehicle you are polluting, the actual process of manufacture and delivery to either your door or the nearest vehicle company it all adds the carbon emissions as you are still relying on services that aren’t 100% green. Therefore, it can be argued do we need cars. Why can’t we rely solely on bikes or walking, why is it we have become so dependant on vehicles to get us to our destinations, although it is quicker is it just us being selfish and thinking short-term when ideally, we should be looking long-term and how although it may not affect our generation but affect the future generations. These are the questions we should be making when it comes to products that are long lasting, as they aren’t just affecting us today but future society too.

Moreover, it is not just our contribution to Carbon emissions that is the problem but also how we pollute the land we live on with litter and non-recyclable materials which tend to be deposited in places other than recycling bins or other wastage sites. "One of the main problems is Marine littering, where litter that is deposited on land makes its way into the ocean, which causes harm to the marine environment, killing animals, and destructing eco-systems. First of these commitments is to work on education aimed at preventing marine litter by raising awareness of the problem and helping to change the behaviour leading to pollution of marine environment." (Dr. Lisa Mundzeck, 2014) There is nothing other than making a behavioural change in society to enable us to tackle Marine littering, we need to educate those who litter so that they understand what happens when they pollute the land with their rubbish. Not only is it down to society to change their ways but it can also be changed from a design perspective. We as designer must put on the shoes of those who's attitude is towards littering, and we must consider what is to happen to our product if it is not disposed in the right manner? We must decide whether we manufacture each component disposable in the same way to make it more convenient to those who purchase the item, or whether we manufacture different components but along with the product comes a guide to the correct way to dispose of the product. Furthermore, it is not just marine wildlife seeing the effects of marine littering but surrounding economies that rely on the ocean to gain an income, "shipping, fishing, aquaculture, tourism and recreation are directly affected by plastic pollution and the total negative impact on oceans has ben estimated at least \$8Bn per year." (Science Direct, 2017) This impacting the local economies and livelihoods of societies. This being a lot of Low-income countries main source of income, especially if there is a decrease in marine life, as fishing industries can not source their food or sell what they catch to the local community, leaving them with empty pockets and empty stomachs. It is now down to us as a society to reduce the waste and create more sustainable or recyclable products that will make our planet clean again. Moreover, in marine life we can see our impact on the arctic as well, due to temperature rise ice bergs are melting resulting in polar bears homes being destructed and left with nowhere to hibernate. This is just one other factor that we need to think about in our daily lives, otherwise we will then start to see an increase in endangered animals to which will be at risk at becoming extinct. Which I what we are beginning to see, animals are a major contribution to our environment so it is essential we start to ensure their safety as well as our own as if they are no longer present we may not survive on our own.

However, we are starting to see change in the world we live in, we are starting with small environmental management tactics so that we can slowly progress and expand our management schemes. Businesses are identifying concerns in their business that are contributing to the rise in the global environmental crisis, they are undergoing internal transfers to reduce the overall emissions of the business, product development and process improvement (Vito Albino, Azzurra Balice and Rosa Maria Dangelico, 2009) these are the small steps that businesses need to take especially oil and gas companies as they make up two-thirds of the climate emissions (Atula Gupta, 2020). However, there is an easier way to find a solution, we as a designing community need to produce designs that are catered to the needs of the environment. We need to focus in on the materials that are used and become conscious of the manufacturing processes that will be needed to produce the product. This will mean weighing up manufacturing processes such as 3D printing or manufacturing products with companies that are either zero CO2 emissions or close to that. Furthermore, it is not just about the innovation of the product that we as designers must think about but the lifecycle and disposal of the product. When designing a concept, it is vital that you think of the disposal as that is where it will impact the environment the most. Whether that is allowing the product to be taken apart melted down and reused, for example Pepsi bottles are now made from old, recycled bottles meaning that all wastage is reused and recreated (Flora Southey,2021). This in theory creating longer lifecycle for

single use products, which is now the beginning of tackling our wastage problem and protecting our marine and land wildlife. This means increasing sustainability of products through a better choice of material that is reliable and hard wearing to enable it to last longer in different environments, for example Apple have a 2 year life on products which will then start to deteriorate. So, instead of thinking money we should be thinking about longevity of a product and to make sure it works at a higher standard for longer.

Next, there are a range of changes we can make to our lives that can also reduce our overall impact as I touched upon earlier, we can choose different modes of transport especially for short distance travelling. If we as a society shift to using solar panels or become reliant on wind farms it provides us with a long lasting supply of energy whilst combating climate change (Kostakis and Sardanou, 2012). As well as being fully green, it is also cheap to use as all energy sources are natural sources so have no costs (BBC, 2021), the only reason society is not swaying for green energy is due to the set-up charge, it may seem high initially but we should be re-evaluating our morals where we stop thinking about the extra money we pay but start to think about how the small change can give us a greener and safe environment. This is where we as designers come in, when designing and deciding on how the product works, we need to analyse how we can implement green energy in our products so if people are against the change of energy sources or can afford the change, we can change the way we design our everyday products.

Therefore, when designing it is crucial to consider the impact on the environment. When I design from now on it will not just be about what material I use but also the manufacturing processes used, for example using zero emission manufacturing processes that may be expensive but the extra expense we pay for a cleaner way of living should be worth it. After writing this essay it is clear that the disposal of products is vital. Due to the rise in waste around the world it is a crisis that needs to be tackled, It is down to the materials that are used for example using recyclable materials, whether that is woods, or plastics that can be melted down and reused, however there are positives and negatives with this process as it does contribute to the CO₂ emissions which isn't appropriate as that is also a factor that is contributing to climate change in which we have to reduce to ensure our planet survives. There must be a plan of action when I design from now on, where I consider every avenue possible even if it requires extra costs or more time as long as it is beneficial for the environment that is the priority. Also, it is crucial to understand the transport costs when transporting the products I make, For example, companies such as DPD have now introduced nearby safe places such as Clothing stores such as Matalan, in which when delivering your parcels if you are not available instead of using petrol to drop your parcel another time, they drop it off to a local store for you to then collect instead, which does not have to be by car it can be by a zero emission mode of transport. Furthermore, it is also necessary to look at the way my products will be packaged, to ensure firstly there is zero wastage and also that it is easily disposable. An option could be to repost it back so it can be reused this helps to also change the behaviour of consumers as it could encourage them to contact other businesses to entice them to do, the same. This then reducing overall waste of packaging. From this essay it is amazing to see the impact of which we as a society have on the environment, it is the steps we take now as we go forward that our environment is dependant on otherwise we could see how we are affecting the environment in the next few years. These are essentially the morals I want to take forward when designing for the future to enable a longer lasting, cleaner environment.

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Why is it important?

How does it link to design?

“The emergence of product take-back legislation in Europe... has forced manufacturers to think more and more about how to dispose appropriately of their products through recycling and reuse”

“Some customers will even pay more for a product if its green”

“Iso 14000 (environmental management standards) certification may become a crucial element in doing business”

“ the opportunity to focus on reduced number of (core) manufacturing processes.”

“not imply that one can always expect a financial reward for becoming environmentally responsible”