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Question 4: 'The Future is Ours'

What does the phrase 'Design for Planet' mean to you? Outline your discussion with reference to current environmental, political, or social design issues that urgently require addressing, and discuss the tools and approaches you might use to consider these issues over the duration of your future design/make career.

A designer's role in the reduction of waste generation

Globally, around 37% of waste ends up in landfill, 33% is openly dumped, 19% is recycled or composted and 11% is incinerated (Front, 2021). Municipal waste alone generates over 2 billion metric tons of waste worldwide every year and is estimated to double by 2050 (Statista, 2025). These are just a few statistics exemplifying our society's excessive waste generation which is a direct result of design choices (Ellen MacArthur Foundation, 2024) and as designers, we must take responsibility for this issue and understand our significance in creating a sustainable, wasteless future. This essay will discuss practices that designers can follow including methods of re-education and the importance of the

Reduce, Reuse and Recycle principles to create durable and sustainable designs and products.

It is important to note that when referring to the terms 'we' and 'designers' in this essay, this includes myself as a current Design Crafts student and a future Product Design student as part of a study abroad opportunity in the second semester.

Waste is a concept that humans have introduced and is not natural because in nature, everything is reused or regenerated as part of the ecosystem (Ellen MacArthur Foundation, 2024). It is for this reason that as designers, we must always keep in mind the phrase 'Design for Planet' which refers to the necessity to create a green future through design. It is also a way for artists to come together to combat environmental issues and reinvent the way we live our lives. More specifically, 'Design for Planet' was created by Design Council (n.d.) who brought a community of artists and designers together to combat issues like waste generation through design. This is because 80% of the environmental impacts of products is determined at the design phase (Design Council, 2025). Furthermore, sustainable and ecofriendly living is promoted through Design Council (n.d.) where the planet is central to everything with design playing a key role in achieving this goal.

Unfortunately, the concept of sustainable design is not a new one as Dieter Rams, an eco-design pioneer, has been stressing the importance to conserve "resources and minimise [...] pollution throughout the life cycle of the product" since the 1970s (Rams, n.d.). Despite Rams' influence, the concept of designing sustainably has not been as

impactful as his other minimalistic approaches (Studio Flach, 2024). However, in Design Council's latest report (2025), most designers stated that they are motivated to create sustainable designs but are limited by budgets, timeframes and low confidence levels. Their lack of confidence is because they lack green design skills as only 43% feel equipped to meet the growing environmental demand (Design Council, 2025). This shows the importance to re-educate ourselves as designers and the urgent need to increase our 'Design for Planet' skills to learn to reduce resource consumption and minimise waste. This leads to the criticism of design education as designers should be fully equipped with the knowledge and resources to combat these real-world issues.

Victor Papanek (1973) blamed design schools for this poor education as only specific skills and philosophies are taught with a lack of focus on the social, economic and environmental aspects behind the design of products. Unfortunately, 50 years later, the design education system has not changed enough due to the ongoing absence of linking theory and practice to enable designers to 'Design for Planet' as Design Council's report (2025) revealed that only 50% of designers feel that their education provided them with moderate to high green design skill acquisition. This proves the immense lack of progress since the 1970s. However, through re-education and adapting design education frameworks, designers can be equipped with the knowledge, skills and support they need to integrate environmental value into every aspect of their projects (Design Council, 2025).

The re-education of designers to create a sustainable society can also be done by prioritising the purity of designs over profit as due to the influence of profit, many products tend to lack quality, sustainability and durability resulting in significant waste

generation. Papanek (1973) holds designers responsible for this issue but states that they are more to blame for the lack of designing better alternative solutions. However, through re-education, we can learn the importance of creating durable, quality products by bringing back value to products through the appreciation of the skill, resources and time taken to create it. This is achievable by adopting John Ruskin's philosophies (1921) outlining the importance of creative freedom and combating the soulless uniformity of mass production. Through his principles, we can learn to create products of value that are created to withstand time rather than feeding into our capitalist society that prioritises profit over quality, durability and sustainability. Therefore, to create to a sustainable future, we must ensure that everything we make is beautiful, functional and durable (Rams, n.d.) rather than producing cheap mass-produced items (Ruskin, 1921).

To create these sustainable and durable products, the end of a product's lifecycle must be considered during the design stage which means being very meticulous in the selection of materials. Choosing materials like wood, a natural and renewable resource and glass, an infinitely recyclable material (Gajjar, 2024) over materials like resin and certain plastics which cannot biodegrade or be recycled (Sustainability Directory, 2025) must be a priority as designers. To further limit waste, products should be designed to circulate in the biological and technical cycles. The biological cycle includes anything that can re-enter the environment through biodegradation like wood and seaweed whereas the technical cycle involves anything that cannot safely return to the biosphere. However, these can be continuously circulated to retain their value like metals and glass by repairing, reusing and recycling them (Ellen Macarthur Foundation, 2024). This means

that if all products circulate in either of these two cycles, then we will have created a fully circular economy where nothing ends up as waste. Therefore, we also need to eliminate products made from technical and biological materials fused in a way that cannot be separated. This means they cannot be recycled or biodegraded and wind up as waste like textiles that blend natural and plastic fibres (Ellen MacArthur Foundation, 2022). Products that require the use of materials from both cycles can be designed with easily detachable components like using screws or using biodegradable glues and paints for wooden furniture. To take this one step further, materials and practices can be reimagined and redeveloped by following the principles of Reduce, Reuse and Recycle (Drew, 2023).

The principle of Reduce can be accomplished by harnessing today's technologies (Raworth, 2018) to decrease the waste created during design and production. This includes using Artificial Intelligence (AI) as a design tool like the use of specialised software that arranges designs on materials in a way that minimises material offcuts. This uses AI's analytical ability to problem solve which increases the efficiency of product development to create products and solutions that are both data-driven and human-centric. This not only cuts down on waste but also speeds up innovation. AI can be used to further reduce material waste by creating quick and efficient digital prototypes which do not result in material wastage from experimentation (Sreenivasan and Suresh, 2024). By working in collaboration with these technologies, it can lead to creative and original designs that are highly efficient and effective to drive innovation. However, the benefits of Artificial Intelligence must be weighed up against its environmental impacts which include the enormous amount of electronic waste it generates and its reliability on rare

elements that are often mined unsustainably. For example, to produce a 2-kilogram computer for an AI data centre, 800 kilograms of raw materials is required (UN Environmental Programme, 2025). This means that for every project, designers must consider the advantages and disadvantages of using these tools to justify the use of Artificial Intelligence.



Figure 1: Act'Pointes Set (Act'ble, n.d.a)

The principle of Reuse can be interpreted through the design of products with detachable components that can be replaced individually when they brake or wear down. This refers to Rams' manifesto where he states that good design must be long-lasting even in a “throwaway society” (Rams, n.d.) which seems to be a forgotten concept due to consumer habits leading to choosing cheaper and poorer-quality products. However, the company Act'ble, in the ballet industry, has incorporated durability into their designs as they have created 3D printed pointe shoes that last at least 5 times longer than regular pointe shoes (Act'ble, n.d.b). For reference, a traditional pair can last just one

performance for professional ballerinas meaning one dancer can go through about 100-120 pairs in a 35-week season (Pittsburgh Ballet Theatre, n.d.). However, Act'ble is breaking the rigid boundaries of ballet by redesigning a shoe that has remained virtually unchanged since the 1890s (Gaynor Minden, n.d.) by creating a shoe that has multiple components that can be replaced individually when needed (Figure 1), therefore reducing waste and fitting perfectly into a circular economy. This is further enhanced by the product's recyclability as the 3D printed sole can be melted down and mixed into new soles. Not only are the parts individually replaceable but this new product is also extremely contemporary because it is designed to be adaptable for dancers as their feet change and develop (Gardner, 2025) which eliminates the need to purchase and test variations of traditional shoes every time this happens and therefore further cuts down on the waste of the product.



Figure 2: Sustainable Ceramics (Cheong, n.d.)



Figure 3: Experimental object (Chalk Plaster, n.d.)

The final principle, Recycle, refers to the traditional meaning of recycling waste but also of salvaging materials to be able to use them again. An example of this in action is through Studio Frostwood, a small two-person ceramics studio. After learning that there is 20% of material wastage during the ceramic making process (Design Council, 2025), they designed solutions for every waste material in their studio by collaborating with local artists to repurpose materials that are typically discarded into new products (Studio Frostwood, 2023). Through these efforts, they managed to divert 111 kilograms of waste, including plaster, contaminated clay and glazed ceramics, from landfill in a year (Design Council, 2025). Their projects included creating 'glaze rocks' from leftover glazes, used as gemstone alternatives, by Stephanie Cheong (Figure 2) in addition to repurposing plaster moulds that were reformed into vessels by Chalk Plaster (Figure 3) (Studio Frostwood, 2023). This project shows the advantages of creating value from waste which diverts materials from landfill and reduces the extraction of virgin materials. A key aspect of 'Design for Planet' (Design Council, n.d.) was also highlighted throughout this project

through the importance of collaboration between artists to create sustainable pieces which allowed all the production waste materials to be recycled.

Nonetheless, there is only so much that can be done through the design process and all efforts made are redundant if consumers do not change their mindsets or adapt their way of living. This means eliminating over consumption and waste generation resulting from the norms of consumerism where cheap prices are chosen over quality and durability (Raworth, 2018). We can do this by becoming cultural influencers to inspire and educate the general population on the impacts of their consumption habits and the benefits of purchasing well-designed sustainable products (Drew, 2023). From a design perspective, educating consumers on the waste stream and production behind products would be an effective method as most people do not understand the design or manufacturing process. Therefore, they do not understand or care about the impacts, like the material wastage, of the items they buy. One way this could be accomplished is through graphic design on branding and packaging to break down the process in an easily understandable way. Effective branding can include telling the story of the product's creation, from source to sale, where sustainability is emphasised at each step (Design Council, 2025) which could be incorporated into packaging labels with the percentage of waste generated to make the product. By simplifying the information and therefore including the consumer in the design process through these labels, it may influence their decisions to buy or use certain products as they can now comprehend the creation and production behind their purchase. This is especially important so consumers can see the value and reasoning

behind the cost of a sustainable and well-designed item and are more likely to purchase it (Design Council, 2025).



Figure 4: Sustainable Shampoo Bottles (Faith in Nature, n.d.a)

An excellent example of sustainable design is the brand, Faith in Nature, who make personal care products that use 99.5% natural ingredients, 100% recycled packaging and prioritise nature over all else in every single aspect of the company. This includes switching from recycled plastic to aluminium bottles as they use less raw materials and are infinitely recyclable. They also aim to create as little onsite waste as possible by reusing and recycling everything that can be and any nonrecyclables are sent to a Waste to Energy facility to be used as fuel. However, every year they reduce their nonrecyclable waste so that they can eventually reach the goal of creating a fully circular economy model with 0% waste. These are all due to their design choices made when designing, choosing materials and through production and packaging which are deeply analysed with reports conducted at every step to ensure they are doing everything they can and

placing nature at its core. Another area they excel in is the way they convey their environmental advancements to consumers because they provide it in an easily understandable and accessible way. This includes their key principles, like promoting their 100% recycled plastic bottles, clearly labelled on their packaging (Figure 4) as well as having a full breakdown on their website. They also make easy-to-read yearly impact reports that includes every detail of the company's sustainable practices down to the installation of water-efficient toilets at their manufacturing site. This barely scratches the surface of Faith in Nature's sustainable-focused organisation that places nature at its centre and truly embodies the 'Design for Planet' principles in every aspect (Faith in Nature, 2024) (Faith in Nature, n.d.b). This is the type of practice that designers should strive to create by designing sustainable products, premeditating the waste creation at every step and continuously improving their environmental initiatives.

In conclusion, it is essential for designers to play their part in this waste generation crisis through the design of waste-free products that fit within the Reduce, Reuse and Recycle principles as well as the biological and technical cycles. This role must also include the re-education of designers to be able to 'Design for Planet' as well as becoming cultural influencers to re-educate our communities on the impacts of over consumption and waste generation. Therefore, it is necessary for us to immediately involve these into our practices to combat this environmental crisis of waste generation created by our own industry and designs.

Bibliography

Act'ble (n.d.a) *Act'Pointes Set*. Available at: <https://www.actble.de/en-gb/products/actpointes> (Accessed 15 November 2025).

Act'ble (n.d.b) *Homepage*. Available at: https://www.actble.de/en-gb?srsId=AfmBOooT_0YQ7Ijh8k_RmL3ULn7270EITE-6N1YdrBrv7m21iHSxnmLp (Accessed 15 November 2025).

Battaglia, A. and Watlington, E. (2024) *Eight Resourceful Artists on Reducing, Reusing, and Recycling*. Available at: <https://www.artnews.com/list/art-in-america/features/recycling-art-portfolio-1234700212/leslie-martinez/> (Accessed 25 November 2025).

Chalk Plaster (n.d.) *Experimental object*. [reprocessed plaster] Available at: https://www.studiofrostwood.co.uk/_files/ugd/3bd222_2bf453f0d088453a9c6a13fe1e73be0f.pdf (Accessed 29 November 2025).

Cheong, S. (n.d.) *Sustainable Ceramics*. [silver, glaze] Available at: <https://www.stefaniecheong.co.uk/projects/sustainable-ceramics> (Accessed 29 November 2025).

Design Council (2025) *Design Economy: The Environmental and Social Value of Design*. Available at: <https://www.designcouncil.org.uk/our-work/design-economy/> (Accessed 30 November 2025).

Design Council (n.d.) *Design for Planet*. Available at: <https://www.designcouncil.org.uk/our-mission/> (Accessed 15 November 2025).

Drew, C. (2023) *How to: Design for Planet*. Available at: <https://medium.com/design-council/how-to-design-for-planet-ec9368c0baf6> (Accessed 30 November 2025).

Ellen MacArthur Foundation (2022) *Circulate Products and Materials*. Available at: <https://www.ellenmacarthurfoundation.org/circulate-products-and-materials> (Accessed 15 November 2025).

Ellen MacArthur Foundation (2024) *Eliminate Waste and Pollution*. Available at: <https://www.ellenmacarthurfoundation.org/eliminate-waste-and-pollution> (Accessed 25 November 2025).

Faith in Nature (2024) *Impact Report 2023-2024*. Available at: https://cdn.shopify.com/s/files/1/0513/8923/5351/files/FIN25_01_Impact_Report.pdf (Accessed 30 November 2025).

Faith in Nature (n.d.a) *Sustainable Shampoo Bottles*. Available at: https://www.faithinnature.co.uk/?tw_source=google&tw_adid=&tw_campaign=20767946541&tw_kwdid=&gad_source=1&gad_campaignid=20778177082&gbraid=0AAAAADqkOl7LqWx6X6E24oQHHL7hh0gfL&gclid=CjwKCAiA3L_JBhAlEiwAlcWO50A_cNUuorcl1QQJf9qcMoHfnn1Py_otGUgalmcXj2NwbOjZfqganRoCU7YQAvD_BwE (Accessed 29 November 2025).

Faith in Nature (n.d.b) *Sustainability*. Available at: <https://www.faithinnature.co.uk/pages/sustainability> (Accessed 29 November 2025).

Front (2021) *28 Incredible Statistics about waste Generation: Global, US, UK & European Union*. Available at: <https://www.front-materials.com/news/statistics-about-waste-generation/> (Accessed 30 November 2025).

Gajjar, A. (2024) *Why Sustainability of Glass is an Eco-friendly Approach*. Available at: <https://www.finepoint.glass/why-sustainability-of-glass-is-an-eco-friendly-approach/> (Accessed 30 November 2025).

Gardner, L. (2025) Email from Act'ble to Rose Mallett, 14 November.

Gaynor Minden (n.d.) *Pointe Shoe Evolution*. Available at: <https://dancer.com/ballet-info/about-pointe-shoes/pointe-shoe-evolution/> (Accessed 25 November 2025).

Papanek, V. (1973) *Design for the Real World*. Bantam Books.

Pittsburgh Ballet Theatre (n.d.) *The Point of Pointe Shoes*. Available at: <https://pbt.org/community/resources-audience-members/ballet-101/pointe-pointe-shoes/> (Accessed 15 November 2025).

Rams, D. (n.d.) *Ten Principles for Good Design*. Available at: <https://www.vitsoe.com/gb/about/good-design#ten-principles-for-good-design> (Accessed 29 November 2025).

Raworth, K. (2018) *A healthy economy should be designed to thrive, not grow*. Available at: https://www.ted.com/talks/kate_raworth_a_healthy_economy_should_be_designed_to_thrive_not_grow (Accessed 29 November 2025).

Ruskin, J. (1921) *Unto This Last*. J.M. Dent & Sons Ltd.

Sreenivasan, A. and Suresh, M. (2024) 'Design thinking and artificial intelligence: A systematic literature review exploring synergies' *International Journal of Innovation Studies*, (8) 3, p. 297-312. Available at:

<https://www.sciencedirect.com/science/article/pii/S2096248724000201> (Accessed 25 November 2025).

Statista (2025) *Global waste generation – statistics & facts*. Available at:

https://www.statista.com/topics/4983/waste-generation-worldwide/?srsltid=AfmBOorvekUblDHxEAw4jktaUbJxQLdocUPVRu8b0C4T_tYwKYkoc59Q (Accessed 15 November 2025).

Studio Flach (2024) *Dieter Rams' 10 Principles of Good Design: Unveiling Timeless Design Wisdom*. Available at: <https://www.studioflach.com/journal/dieter-rams-10-principles-of-good-design-unveiling-timeless-design-wisdom#:~:text=The%20Global%20Influence%20of%20Dieter,in%20creating%20a%20better%20world> (Accessed 29 November 2025).

Studio Frostwood (2023) *The Price of Clay: Sustainability Report 2023*. Available at: https://www.studiofrostwood.co.uk/_files/ugd/3bd222_2bf453f0d088453a9c6a13fe1e73be0f.pdf (Accessed 30 November 2025).

Studio Frostwood (2023) *The Price of Clay: Sustainability Report 2023*. Available at: https://www.studiofrostwood.co.uk/_files/ugd/3bd222_2bf453f0d088453a9c6a13fe1e73be0f.pdf (Accessed 30 November 2025).

Sustainability Directory (2025) *What are 'non-recyclable' design elements that designers should avoid?* Available at: <https://lifestyle.sustainability-directory.com/learn/what-are-non-recyclable-design-elements-that-designers-should-avoid/> (Accessed 25 November 2025).

UN Environmental Programme (2025) *AI has an environmental problem. Here's what the world can do about that*. Available at: <https://www.unep.org/news-and-stories/story/ai-has-environmental-problem-heres-what-world-can-do-about> (Accessed 15 November 2025).